Appendix A: EL CAMINO REAL DE TIERRA ADENTRO NATIONAL HISTORIC TRAIL ESTABLISHMENT ACT (P.L. 106-307)

EL CAMINO REAL DE TIERRA ADENTRO NATIONAL HISTORIC TRAIL ACT

Public Law 106–307 106th Congress

An Act

Oct. 13, 2000 [S. 366] To amend the National Trails System Act to designate El Camino Real de Tierra Adentro as a National Historic Trail.

El Camino Real de Tierra Adentro National Historic Trail Act. New Mexico. Texas. 16 USC 1241 note. Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SECTION 1. SHORT TITLE.

This Act may be cited as the "El Camino Real de Tierra Adentro National Historic Trail Act".

SEC. 2. FINDINGS.

The Congress finds the following:

(1) El Camino Real de Tierra Adentro (the Royal Road of the Interior), served as the primary route between the colonial Spanish capital of Mexico City and the Spanish provincial capitals at San Juan de Los Caballeros (1598–1600), San Gabriel (1600–1609) and then Santa Fe (1610–1821).

(2) The portion of El Camino Real de Tierra Adentro that resided in what is now the United States extended between El Paso, Texas and present San Juan Pueblo, New Mexico,

a distance of 404 miles;

(3) El Camino Real is a symbol of the cultural interaction between nations and ethnic groups and of the commercial exchange that made possible the development and growth of the borderland;

(4) American Indian groups, especially the Pueblo Indians of the Rio Grande, developed trails for trade long before Euro-

peans arrived;

(5) In 1598, Juan de Onate led a Spanish military expedition along those trails to establish the northern portion of

El Camino Real;

(6) During the Mexican National Period and part of the United States Territorial Period, El Camino Real de Tierra Adentro facilitated the emigration of people to New Mexico and other areas that would become the United States;

(7) The exploration, conquest, colonization, settlement, religious conversion, and military occupation of a large area of the borderlands was made possible by this route, whose historical period extended from 1598 to 1882;

(8) American Indians, European emigrants, miners, ranchers, soldiers, and missionaries used El Camino Real during the historic development of the borderlands. These travelers promoted cultural interaction among Spaniards, other Europeans, American Indians, Mexicans, and Americans;

(9) El Camino Real fostered the spread of Catholicism, mining, an extensive network of commerce, and ethnic and cultural traditions including music, folklore, medicine, foods, architecture, language, place names, irrigation systems, and

Spanish law.

SEC. 3. AUTHORIZATION AND ADMINISTRATION.

Section 5(a) of the National Trails System Act (16 U.S.C.

1244(a)) is amended—

(1) by designating the paragraphs relating to the California National Historic Trail, the Pony Express National Historic Trail, and the Selma to Montgomery National Historic Trail as paragraphs (18), (19), and (20), respectively; and

(2) by adding at the end the following:

"(21) EL CAMINO REAL DE TIERRA ADENTRO.—

- "(A) El Camino Real de Tierra Adentro (the Royal Road of the Interior) National Historic Trail, a 404 mile long trail from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico, as generally depicted on the maps entitled 'United States Route: El Camino Real de Tierra Adentro', contained in the report prepared pursuant to subsection (b) entitled 'National Historic Trail Feasibility Study and Environmental Assessment: El Camino Real de Tierra Adentro, Texas-New Mexico', dated March 1997.
- "(B) Map.—A map generally depicting the trail shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior. "(C) ADMINISTRATION.—The Trail shall be administered

by the Secretary of the Interior.

"(D) LAND ACQUISITION.—No lands or interests therein outside the exterior boundaries of any federally administered area may be acquired by the Federal Government for El Camino Real de Tierra Adentro except with the consent of the owner thereof.

"(E) VOLUNTEER GROUPS; CONSULTATION.—The Sec-

retary of the Interior shall—

"(i) encourage volunteer trail groups to participate in the development and maintenance of the trail; and "(ii) consult with other affected Federal, State, local governmental, and tribal agencies in the administration of the trail. 114 STAT. 1076

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"(F) Coordination of activities.—The Secretary of the Interior may coordinate with United States and Mexican public and non-governmental organizations, academic institutions, and, in consultation with the Secretary of State, the government of Mexico and its political subdivisions, for the purpose of exchanging trail information and research, fostering trail preservation and educational programs, providing technical assistance, and working to establish an international historic trail with complementary preservation and education programs in each nation.".

Approved October 13, 2000.

LEGISLATIVE HISTORY—S. 366:

SENATE REPORTS: No. 106-22 (Comm. on Energy and Natural Resources). CONGRESSIONAL RECORD:
Vol. 145 (1999): Nov. 19, considered and passed Senate.

Vol. 146 (2000): Oct. 3, considered and passed House.

Appendix B NATIONAL TRAILS SYSTEM ACT (P.L. 90-543), AS AMENDED

THE NATIONAL TRAILS SYSTEM ACT

(P.L. 90-543) (16 U.S.C. 1241-1251) as amended through P.L. 106-509, November 13, 2000

AN ACT

To establish a national trails system, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

SHORT TITLE

SECTION 1. This Act may be cited as the "National Trails System Act".

STATEMENT OF POLICY

SEC. 2. [16USC1241]

- (a) In order to provide for the ever-increasing outdoor recreation needs of an expanding population and in order to promote the preservation of, public access to, travel within, and enjoyment and appreciation of the open-air, outdoor areas and historic resources of the Nation, trails should be established (I) primarily, near the urban areas of the Nation, and (ii) secondarily, within scenic areas and along historic travel routes of the Nation which are often more remotely located.
- (b) The purpose of this Act is to provide the means for attaining these objectives by instituting a national system of recreation, scenic and historic trails, by designating the Appalachian Trail and the Pacific Crest Trail as the initial components of that system, and by prescribing the methods by which, and standards according to which, additional components may be added to the system.
- (c) The Congress recognizes the valuable contributions that volunteers and private, non-profit trail groups have made to the development and maintenance of the Nation's trails. In recognition of these contributions, it is further the purpose of this Act to encourage and assist volunteer citizen involvement in the planning, development, maintenance, and management, where appropriate, of trails.

NATIONAL TRAILS SYSTEM

SEC. 3. [16USC1242] (a) The national system of trails shall be composed of the following:

- (l) National recreation trails, established as provided in section 4 of this Act, which will provide a variety of outdoor recreation uses in or reasonably accessible to urban areas.
 - (2) National scenic trails, established as provided in section 5 of this Act, which will

be extended trails so located as to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass. National scenic trails may be located so as to represent desert, marsh, grassland, mountain, canyon, river, forest, and other areas, as well as landforms which exhibit significant characteristics of the physiographic regions of the Nation.

- (3) National historic trails, established as provided in section 5 of this Act, which will be extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic trail criteria established in this Act are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.
- (4) Connecting or side trails, established as provided in section 6 of this Act, which will provide additional points of public access to national recreation, national scenic or national historic trails or which will provide connections between such trails.

The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker for the national trails system.

(b) For purposes of this section, the term 'extended trails' means trails or trail segments which total at least one hundred miles in length, except that historic trails of less than one hundred miles may be designated as extended trails. While it is desirable that extended trails be continuous, studies of such trails may conclude that it is feasible to propose one or more trail segments which, in the aggregate, constitute at least one hundred miles in length.

NATIONAL RECREATION TRAILS

SEC. 4. [16USC1243]

- (a) The Secretary of the Interior, or the Secretary of Agriculture where lands administered by him are involved, may establish and designate national recreation trails, with the consent of the Federal agency, State, or political subdivision having jurisdiction over the lands involved, upon finding that
 - (I) such trails are reasonably accessible to urban areas, and, or
 - (ii) such trails meet the criteria established in this Act and such supplementary criteria as he may prescribe.
- (b) As provided in this section, trails within park, forest, and other recreation areas administered by the Secretary of the Interior or the Secretary of Agriculture or in other federally administered areas may be established and designated as "National Recreation Trails" by the appropriate Secretary and, when no Federal land acquisition is involved —
- (i) trails in or reasonably accessible to urban areas may be designated as "National Recreation Trails" by the appropriate Secretary with the consent of the States, their political sub-

divisions, or other appropriate administering agencies;

- (ii) trails within park, forest, and other recreation areas owned or administered by States may be designated as "National Recreation Trails" by the appropriate Secretary with the consent of the State; and
- (iii) trails on privately owned lands may be designated 'National Recreation Trails' by the appropriate Secretary with the written consent of the owner of the property involved.

NATIONAL SCENIC AND NATIONAL HISTORIC TRAILS

SEC. 5. [16USC1244] (a) National scenic and national historic trails shall be authorized and designated only by Act of Congress. There are hereby established the following National Scenic and National Historic Trails:

- (21) El Camino Real de tierra adentro
 - (A) El Camino Real de Tierra Adentro (the Royal Road of the Interior) National Historic Trail, a 404 mile long trail from Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico, as generally depicted on the maps entitled 'United States Route: El Camino Real de Tierra Adentro,' contained in the report prepared pursuant to subsection (b) entitled 'National Historic Trail Feasibility Study and Environmental Assessment: El Camino Real de Tierra Adentro, Texas-New Mexico,' dated March 1997.
 - (B) MAP A map generally depicting the trail shall be on file and available for public inspection in the Office of the National Park Service, Department of the Interior.
 - (C) ADMINISTRATION The Trail shall be administered by the Secretary of the Interior.
 - (D) LAND ACQUISTION No lands or interests therein outside the exterior boundaries of any federally administered area may be acquired by the Federal Government for El Camino Real de Tierra Adentro except with the consent of the owner thereof.
 - (E) VOLUNTEER GROUPS; CONSULTATION The Secretary of the Interior shall
 - (i) encourage volunteer groups to participate in the development and maintenance of the trail; and
 - (ii) consult with other affected Federal, State, local governmental, and tribal agencies in the administration of the trail.
 - (F) COORDINATION OF ACTIVITIES The Secretary of the Interior may coordinate with United States and Mexican public and non-governmental organizations, academic institutions, and in consultation with the Secretary of State, the government of Mexico and its political subdivisions, for

the purpose of exchanging trail information and research, fostering trail preservation and education programs, providing technical assistance, and working to establish an international historic trail with complementary preservation and education programs in each nation.

- (b) The Secretary of the Interior, through the agency most likely to administer such trail, and the Secretary of Agriculture where lands administered by him are involved, shall make such additional studies as are herein or may hereafter be authorized by the Congress for the purpose of determining the feasibility and desirability of designating other trails as national scenic or national historic trails. Such studies shall be made in consultation with the heads of other Federal agencies administering lands through which such additional proposed trails would pass and in cooperation with interested interstate, State, and local governmental agencies, public and private organizations, and landowners and land users concerned. The feasibility of designating a trail shall be determined on the basis of an evaluation of whether or not it is physically possible to develop a trail along a route being studied, and whether the development of a trail would be financially feasible. The studies listed in subsection (c) of this section shall be completed and submitted to the Congress, with recommendations as to the suitability of trail designation, not later than three complete fiscal years from the date of enactment of their addition to this subsection, or from the date of enactment of this sentence, whichever is later. Such studies, when submitted, shall be printed as a House or Senate document, and shall include, but not be limited to:
 - (1) the proposed route of such trail (including maps and illustrations);
 - (2) the areas adjacent to such trails, to be utilized for scenic, historic, natural, cultural, or developmental purposes;
 - 3) the characteristics which, in the judgment of the appropriate Secretary, make the proposed trail worthy of designation as a national scenic or national historic trail; and in the case of national historic trails the report shall include the recommendation of the Secretary of the Interior's National Park System Advisory Board as to the national historic significance based on the criteria developed under the Historic Sites Act of 1935 (40 Stat. 666; 16 U.S.C. 461);
 - (4) the current status of land ownership and current and potential use along the designated route;
 - (5) the estimated cost of acquisition of lands or interest in lands, if any;
 - (6) the plans for developing and maintaining the trail and the cost thereof;
 - (7) the proposed Federal administering agency (which, in the case of a national scenic trail wholly or substantially within a national forest, shall be the Department of Agriculture);
 - (8) the extent to which a State or its political subdivisions and public and private organizations might reasonably be expected to participate in acquiring the necessary lands and in the administration thereof;
 - (9) the relative uses of the lands involved, including: the number of anticipated visitor-days for the entire length of, as well as for segments of, such trail; the num-

ber of months which such trail, or segments thereof, will be open for recreation purposes; the economic and social benefits which might accrue from alternate land uses; and the estimated man- years of civilian employment and expenditures expected for the purposes of maintenance, supervision, and regulation of such trail:

- (10) the anticipated impact of public outdoor recreation use on the preservation of a proposed national historic trail and its related historic and archeological features and settings, including the measures proposed to ensure evaluation and preservation of the values that contribute to their national historic significance; and
- (11) To qualify for designation as a national historic trail, a trail must meet all three of the following criteria:
- (A) It must be a trail or route established by historic use and must be historically significant as a result of that use. The route need not currently exist as a discernible trail to qualify, but its location must be sufficiently known to permit evaluation of public recreation and historical interest potential. A designated trail should generally accurately follow the historic route, but may deviate somewhat on occasion of necessity to avoid difficult routing through subsequent development, or to provide some route variations offering a more pleasurable recreational experience. Such deviations shall be so noted on site. Trail segments no longer possible to travel by trail due to subsequent development as motorized transportation routes may be designated and marked onsite as segments which link to the historic trail.
- (B) It must be of national significance with respect to any of several broad facets of American history, such as trade and commerce, exploration, migration and settlement, or military campaigns. To qualify as nationally significant, historic use of the trail must have had a far reaching effect on broad patterns of American culture. Trails significant in the history of native Americans may be included.
- (C) It must have significant potential for public recreational use or historical interest based on historic interpretation and appreciation. The potential for such use is generally greater along roadless segments developed as historic trails and at historic sites associated with the trail. The presence of recreation potential not related to historic appreciation is not sufficient justification for designation under this category.
- (c) The following routes shall be studied in accordance with the objectives outlined in subsection (b) of this section.

(1)

- (36) (A) El Camino Real de Tierra Adentro, the approximately 1,800 mile route extending from Mexico City, Mexico, across the international border at El Paso, Texas, to Santa Fe, New Mexico.
 - (B) The study shall (i) examine changing routes within the general corridor; (ii) examine major connecting branch routes; and (iii) give due consideration to alternative name designations.
 - (C) The Secretary of the Interior is authorized to work in cooperation with the Government of Mexico (including, but not limited to providing technical assistance) to determine the suitability and feasibility of establishing an international historic route along the El Camino Real de Tierra Adentro.

- (d) The Secretary charged with the administration of each respective trail shall, within one year of the date of the addition of any national scenic or national historic trail to the system, and within sixty days of the enactment of this sentence for the Appalachian and Pacific Crest National Scenic Trails, establish an advisory council for each such trail, each of which councils shall expire ten years from the date of its establishment, except that the Advisory Council established for the Iditarod Historic Trail shall expire twenty years from the date of its establishment. If the appropriate Secretary is unable to establish such an advisory council because of the lack of adequate public interest, the Secretary shall so advise the appropriate committees of the Congress. The appropriate Secretary shall consult with such council from time to time with respect to matters relating to the trail, including the selection of rights- of- way, standards for the erection and maintenance of markers along the trail, and the administration of the trail. The members of each advisory council, which shall not exceed thirty-five in number, shall serve for a term of two years and without compensation as such, but the Secretary may pay, upon vouchers signed by the chairman of the council, the expenses reasonably incurred by the council and its members in carrying out their responsibilities under this section. Members of each council shall be appointed by the appropriate Secretary as follows:
- (1) the head of each Federal department or independent agency administering lands through which the trail route passes, or his designee;
- (2) a member appointed to represent each State through which the trail passes, and such appointments shall be made from recommendations of the Governors of such States:
- (3) one or more members appointed to represent private organizations, including corporate and individual landowners and land users, which in the opinion of the Secretary, have an established and recognized interest in the trail, and such appointments shall be made from recommendations of the heads of such organizations: Provided, That the Appalachian Trail Conference shall be represented by a sufficient number of persons to represent the various sections of the country through which the Appalachian Trail passes; and
- (4) the Secretary shall designate one member to be chairman and shall fill vacancies in the same manner as the original appointment.
- (e) Within two complete fiscal years of the date of enactment of legislation designating a national scenic trail, except for the Continental Divide National Scenic Trail and the North Country National Scenic Trail, as part of the system, and within two complete fiscal years of the date of enactment of this subsection for the Pacific Crest and Appalachian Trails, the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, the relevant advisory council established pursuant to section 5(d), and the Appalachian Trail Conference in the case of the Appalachian Trail, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the acquisition, management, development, and use of the trail, including but not limited to, the following items:
- (1) specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved (along with high potential historic sites and high potential route segments in the case of national historic trails), details of any anticipated

cooperative agreements to be consummated with other entities, and an identified carrying capacity of the trail and a plan for its implementation;

- (2) an acquisition or protection plan, by fiscal year for all lands to be acquired by fee title or lesser interest, along with detailed explanation of anticipated necessary cooperative agreements for any lands not to be acquired; and
 - (3) general and site-specific development plans including anticipated costs.
- (f) Within two complete fiscal years of the date of enactment of legislation designating a national historic trail or the Continental Divide National Scenic Trail or the North Country National Scenic Trail as part of the system, the responsible Secretary shall, after full consultation with affected Federal land managing agencies, the Governors of the affected States, and the relevant Advisory Council established pursuant to section 5(d) of this Act, submit to the Committee on Interior and Insular Affairs of the House of Representatives and the Committee on Energy and Natural Resources of the Senate, a comprehensive plan for the management, and use of the trail, including but not limited to, the following items:
 - (1) specific objectives and practices to be observed in the management of the trail, including the identification of all significant natural, historical, and cultural resources to be preserved, details of any anticipated cooperative agreements to be consummated with State and local government agencies or private interests, and for national scenic or national historic trails an identified carrying capacity of the trail and a plan for its implementation;
 - (2) the process to be followed by the appropriate Secretary to implement the marking requirements established in section 7(c) of this Act;
 - (3) a protection plan for any high potential historic sites or high potential route segments; and
 - (4) general and site-specific development plans, including anticipated costs.

CONNECTING AND SIDE TRAILS

SEC. 6. [16USC1245] Connecting or side trails within park, forest, and other recreation areas administered by the Secretary of the Interior or Secretary of Agriculture may be established, designated, and marked by the appropriate Secretary as components of a national recreation, national scenic or national historic trail. When no Federal land acquisition is involved, connecting or side trails may be located across lands administered by interstate, State, or local governmental agencies with their consent, or, where the appropriate Secretary deems necessary or desirable, on privately owned lands with the consent of the landowners. Applications for approval and designation of connecting and side trails on non-Federal lands shall be submitted to the appropriate Secretary.

ADMINISTRATION AND DEVELOPMENT

SEC. 7. [16USC1246]

- (a) (1) (A) The Secretary charged with the overall administration of a trail pursuant to section 5(a) shall, in administering and managing the trail, consult with the heads of all other affected State and Federal agencies. Nothing contained in this Act shall be deemed to transfer among Federal agencies any management responsibilities established under any other law for federally administered lands which are components of the National Trails System. Any transfer of management responsibilities may be carried out between the Secretary of the Interior and the Secretary of Agriculture only as provided under subparagraph (B).
- (B) The Secretary charged with the overall administration of any trail pursuant to section 5(a) may transfer management of any specified trail segment of such trail to the other appropriate Secretary pursuant to a joint memorandum of agreement containing such terms and conditions as the Secretaries consider most appropriate to accomplish the purposes of this Act. During any period in which management responsibilities for any trail segment are transferred under such an agreement, the management of any such segment shall be subject to the laws, rules, and regulations of the Secretary provided with the management authority under the agreement except to such extent as the agreement may otherwise expressly provide.
- (2) Pursuant to section 5(a), the appropriate Secretary shall select the rights- of- way for national scenic and national historic trails and shall publish notice thereof of the availability of appropriate maps or descriptions in the Federal Register; Provided, That in selecting the rights- of- way full consideration shall be given to minimizing the adverse effects upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple- use plans for the specific area in order to insure continued maximum benefits from the land. The location and width of such rights- of- way across Federal lands under the jurisdiction of another Federal agency shall be by agreement between the head of that agency and the appropriate Secretary. In selecting rights- of- way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned.
- (b) After publication of notice of the availability of appropriate maps or descriptions in the Federal Register, the Secretary charged with the administration of a national scenic or national historic trail may relocate segments of a national scenic or national historic trail right- of- way with the concurrence of the head of the Federal agency having jurisdiction over the lands involved, upon a determination that: (I) Such a relocation is necessary to preserve the purposes for which the trail was established, or (ii) the relocation is necessary to promote a sound land management program in accordance with established multiple- use principles: Provided, That a substantial relocation of the rights- of- way for such trail shall be by Act of Congress.
- (c) National scenic or national historic trails may contain campsites, shelters, and related-public- use facilities. Other uses along the trail, which will not substantially interfere with the nature and purposes of the trail, may be permitted by the Secretary charged with the administration of the trail. Reasonable efforts shall be made to provide sufficient access opportunities to such trails and, to the extent practicable, efforts be made to avoid activities incompatible with the purposes for which such trails were established. The use of motorized vehicles by the general public along any national scenic trail shall be prohibited and nothing in this Act shall be construed as authorizing the use of motorized vehicles within the natural and historical areas of the national park system, the national wildlife refuge system, the national wilderness preservation system where they are presently prohibited or on other Federal lands where trails are designated as being closed to such use by the appropriate Secretary: Provided, That the Secretary charged with the

administration of such trail shall establish regulations which shall authorize the use of motorized vehicles when, in his judgment, such vehicles are necessary to meet emergencies or to enable adjacent landowners or land users to have reasonable access to their lands or timber rights: Provided further, That private lands included in the national recreation, national scenic, or national historic trails by cooperative agreement of a landowner shall not preclude such owner from using motorized vehicles on or across such trails or adjacent lands from time to time in accordance with regulations to be established by the appropriate Secretary. Where a national historic trail follows existing public roads, developed rights- of- way or waterways, and similar features of man's nonhistorically related development, approximating the original location of a historic route, such segments may be marked to facilitate retracement of the historic route, and where a national historic trail parallels an existing public road, such road may be marked to commemorate the historic route. Other uses along the historic trails and the Continental Divide National Scenic Trail, which will not substantially interfere with the nature and purposes of the trail, and which, at the time of designation, are allowed by administrative regulations, including the use of motorized vehicles, shall be permitted by the Secretary charged with administration of the trail. The Secretary of the Interior and the Secretary of Agriculture, in consultation with appropriate governmental agencies and public and private organizations, shall establish a uniform marker, including thereon an appropriate and distinctive symbol for each national recreation, national scenic, and national historic trail. Where the trails cross lands administered by Federal agencies such markers shall be erected at appropriate points along the trails and maintained by the Federal agency administering the trail in accordance with standards established by the appropriate Secretary and where the trails cross non-Federal lands, in accordance with written cooperative agreements, the appropriate Secretary shall provide such uniform markers to cooperating agencies and shall require such agencies to erect and maintain them in accordance with the standards established. The appropriate Secretary may also provide for trail interpretation sites, which shall be located at historic sites along the route of any national scenic or national historic trail, in order to present information to the public about the trail, at the lowest possible cost, with emphasis on the portion of the trail passing through the State in which the site is located. Wherever possible, the sites shall be maintained by a State agency under a cooperative agreement between the appropriate Secretary and the State agency.

- (d) Within the exterior boundaries of areas under their administration that are included in the right- of- way selected for a national recreation, national scenic, or national historic trail, the heads of Federal agencies may use lands for trail purposes and may acquire lands or interests in lands by written cooperative agreement, donation, purchase with donated or appropriated funds or exchange.
- (e) Where the lands included in a national scenic or national historic trail right- of- way are outside of the exterior boundaries of federally administered areas, the Secretary charged with the administration of such trail shall encourage the States or local governments involved (1) to enter into written cooperative agreements with landowners, private organizations, and individuals to provide the necessary trail right- of- way, or (2) to acquire such lands or interests therein to be utilized as segments of the national scenic or national historic trail: Provided, That if the State or local governments fail to enter into such written cooperative agreements or to acquire such lands or interests therein after notice of the selection of the right- of- way is published, the appropriate Secretary, may (i) enter into such agreements with landowners, States, local governments, private organizations, and individuals for the use of lands for trail purposes, or (ii) acquire private lands or interests therein by donation, purchase with donated or appropriated funds or exchange in accordance with the provisions of subsection (f) of this section: Provided further, That the appropriate Secretary may acquire lands or interests therein from local governments or governmental corporations with the consent of such entities. The lands involved in such rights- of- way should be acquired in fee, if other methods of public control are not sufficient to assure their use for the purpose for which they are acquired: Provided, That if the Secretary charged with the administration of such trail permanently relocates the right- of- way and disposes of all title or interest in the

land, the original owner, or his heirs or assigns, shall be offered, by notice given at the former owner's last known address, the right of first refusal at the fair market price.

- (1) The Secretary of the Interior, in the exercise of his exchange authority, may accept title to any non-Federal property within the right- of- way and in exchange therefor he may convey to the grantor of such property any federally owned property under his jurisdiction which is located in the State wherein such property is located and which he classifies as suitable for exchange or other disposal. The values of the properties so exchanged either shall be approximately equal, or if they are not approximately equal the values shall be equalized by the payment of cash to the grantor or to the Secretary as the circumstances require. The Secretary of Agriculture, in the exercise of his exchange authority, may utilize authorities and procedures available to him in connection with exchanges of national forest lands.
- (2) In acquiring lands or interests therein for a National Scenic or Historic Trail, the appropriate Secretary may, with consent of a landowner, acquire whole tracts notwithstanding that parts of such tracts may lie outside the area of trail acquisition. In furtherance of the purposes of this act, lands so acquired outside the area of trail acquisition may be exchanged for any non-Federal lands or interests therein within the trail right- of- way, or disposed of in accordance with such procedures or regulations as the appropriate Secretary shall prescribe, including: (I) provisions for conveyance of such acquired lands or interests therein at not less than fair market value to the highest bidder, and (ii) provisions for allowing the last owners of record a right to purchase said acquired lands or interests therein upon payment or agreement to pay an amount equal to the highest bid price. For lands designated for exchange or disposal, the appropriate Secretary may convey these lands with any reservations or covenants deemed desirable to further the purposes of this Act. The proceeds from any disposal shall be credited to the appropriation bearing the costs of land acquisition for the affected trail.
- (g) The appropriate Secretary may utilize condemnation proceedings without the consent of the owner to acquire private lands or interests, therein pursuant to this section only in cases where, in his judgment, all reasonable efforts to acquire such lands or interest therein by negotiation have failed, and in such cases he shall acquire only such title as, in his judgment, is reasonably necessary to provide passage across such lands: Provided, That condemnation proceedings may not be utilized to acquire fee title or lesser interests to more than an average of one hundred and twenty- five acres per mile. Money appropriated for Federal purposes from the land and water conservation fund shall, without prejudice to appropriations from other sources, be available to Federal departments for the acquisition of lands or interests in lands for the purposes of this Act. For national historic trails, direct Federal acquisition for trail purposes shall be limited to those areas indicated by the study report or by the comprehensive plan as high potential route segments or high potential historic sites. Except for designated protected components of the trail, no land or site located along a designated national historic trail or along the Continental Divide National Scenic Trail shall be subject to the provisions of section 4(f) of the Department of Transportation Act (49 U.S.C. 1653(f)) unless such land or site is deemed to be of historical significance under appropriate historical site criteria such as those for the National Register of Historic Places.
- (1) The Secretary charged with the administration of a national recreation, national scenic, or national historic trail shall provide for the development and maintenance of such trails within federally administered areas, and shall cooperate with and encourage the States to operate, develop, and maintain portions of such trails which are located outside the boundaries of federally administered areas. When deemed to be in the public interest, such Secretary may enter written cooperative agreements with the States or their political subdivisions, landowners, private organizations, or individuals to operate, develop, and maintain any portion of such a trail either within or outside a federally administered area. Such agreements may include provisions for limited financial assistance to encourage participation in the acquisition, protection, operation, develop-

ment, or maintenance of such trails, provisions providing volunteer in the park or volunteer in the forest status (in accordance with the Volunteers in the Parks Act of 1969 and the Volunteers in the Forests Act of 1972) to individuals, private organizations, or landowners participating in such activities, or provisions of both types. The appropriate Secretary shall also initiate consultations with affected States and their political subdivisions to encourage —

- (A) the development and implementation by such entities of appropriate measures to protect private landowners from trespass resulting from trail use and from unreasonable personal liability and property damage caused by trail use, and
- (B) the development and implementation by such entities of provisions for land practices compatible with the purposes of this Act, for property within or adjacent to trail rights- of- way. After consulting with States and their political subdivisions under the preceding sentence, the Secretary may provide assistance to such entities under appropriate cooperative agreements in the manner provided by this subsection.
- (2) Whenever the Secretary of the Interior makes any conveyance of land under any of the public land laws, he may reserve a right- of- way for trails to the extent he deems necessary to carry out the purposes of this Act.
- (i) The appropriate Secretary, with the concurrence of the heads of any other Federal agencies administering lands through which a national recreation, national scenic, or national historic trail passes, and after consultation with the States, local governments, and organizations concerned, may issue regulations, which may be revised from time to time, governing the use, protection, management, development, and administration of trails of the national trails system. In order to maintain good conduct on and along the trails located within federally administered areas and to provide for the proper government and protection of such trails, the Secretary of the Interior and the Secretary of Agriculture shall prescribe and publish such uniform regulations as they deem necessary and any person who violates such regulations shall be guilty of a misdemeanor, and may be punished by a fine of not more \$500 or by imprisonment not exceeding six months, or by both such fine and imprisonment. The Secretary responsible for the administration of any segment of any component of the National Trails System (as determined in a manner consistent with subsection (a)(1) of this section) may also utilize authorities related to units of the national park system or the national forest system, as the case may be, in carrying out his administrative responsibilities for such component.
- (j) Potential trail uses allowed on designated components of the national trails system may include, but are not limited to, the following: bicycling, cross-country skiing, day hiking, equestrian activities, jogging or similar fitness activities, trail biking, overnight and long-distance backpacking, snowmobiling, and surface water and underwater activities. Vehicles which may be permitted on certain trails may include, but need not be limited to, motorcycles, bicycles, four-wheel drive or all-terrain off-road vehicles. In addition, trail access for handicapped individuals may be provided. The provisions of this subsection shall not supersede any other provisions of this Act or other Federal laws, or any State or local laws.
- (k) For the conservation purpose of preserving or enhancing the recreational, scenic, natural, or historical values of components of the national trails system, and environs thereof as determined by the appropriate Secretary, landowners are authorized to donate or otherwise convey qualified real property interests to qualified organizations consistent with section 170(h)(3) of the Internal Revenue Code of 1954, including, but not limited to, right- of- way, open space, scenic, or conservation easements, without regard to any limitation on the nature of the estate or interest

otherwise transferable within the jurisdiction where the land is located. The conveyance of any such interest in land in accordance with this subsection shall be deemed to further a Federal conservation policy and yield a significant public benefit for purposes of section 6 of Public Law 96-541.

STATE AND METROPOLITAN AREA TRAILS

- SEC. 8. [16USC1247] (a) The Secretary of the Interior is directed to encourage States to consider, in their comprehensive statewide outdoor recreation plans and proposals for financial assistance for State and local projects submitted pursuant to the Land and Water Conservation Fund Act, needs and opportunities for establishing park, forest, and other recreation and historic trails on lands owned or administered by States, and recreation and historic trails on lands in or near urban areas. The Secretary is also directed to encourage States to consider, in their comprehensive statewide historic preservation plans and proposals for financial assistance for State, local, and private projects submitted pursuant to the Act of October 15, 1966 (80 Stat. 915), as amended, needs and opportunities for establishing historic trails. He is further directed in accordance with the authority contained in the Act of May 28, 1963 (77 Stat. 49), to encourage States, political subdivisions, and private interests, including nonprofit organizations, to establish such trails.
- (b) The Secretary of Housing and Urban Development is directed, in administering the program of comprehensive urban planning and assistance under section 701 of the Housing Act of 1954, to encourage the planning of recreation trails in connection with the recreation and transportation planning for metropolitan and other urban areas. He is further directed, in administering the urban open space program under title VII of the Housing Act of 1961, to encourage such recreation trails.
- (c) The Secretary of Agriculture is directed, in accordance with authority vested in him, to encourage States and local agencies and private interests to establish such trails.
- (d) The Secretary of Transportation, the Chairman of the Interstate Commerce Commission, and the Secretary of the Interior, in administering the Railroad Revitalization and Regulatory Reform Act of 1976, shall encourage State and local agencies and private interests to establish appropriate trails using the provisions of such programs. Consistent with the purposes of that Act, and in furtherance of the national policy to preserve established railroad rights- of- way for future reactivation of rail service, to protect rail transportation corridors, and to encourage energy efficient transportation use, in the case of interim use of any established railroad rights- of- way pursuant to donation, transfer, lease, sale, or otherwise in a manner consistent with the National Trails System Act, if such interim use is subject to restoration or reconstruction for railroad purposes, such interim use shall not be treated, for purposes of any law or rule of law, as an abandonment of the use of such rights- of- way for railroad purposes. If a State, political subdivision, or qualified private organization is prepared to assume full responsibility for management of such rights- of- way and for any legal liability arising out of such transfer or use, and for the payment of any and all taxes that may be levied or assessed against such rights- of- way, then the Commission shall impose such terms and conditions as a requirement of any transfer or conveyance for interim use in a manner consistent with this Act, and shall not permit abandonment or discontinuance inconsistent or disruptive of such use.
- (e) Such trails may be designated and suitably marked as parts of the nationwide system of trails by the States, their political subdivisions, or other appropriate administering agencies with the approval of the Secretary of the Interior.

RIGHTS- OF- WAY AND OTHER PROPERTIES

- SEC. 9. [16USC1248] (a) The Secretary of the Interior or the Secretary of Agriculture as the case may be, may grant easements and rights- of- way upon, over, under, across, or along any component of the national trails system in accordance with the laws applicable to the national park system and the national forest system, respectively: <u>Provided</u>, That any conditions contained in such easements and rights- of- way shall be related to the policy and purposes of this Act.
- (b) The Department of Defense, the Department of Transportation, the Interstate Commerce Commission, the Federal Communications Commission, the Federal Power Commission, and other Federal agencies having jurisdiction or control over or information concerning the use, abandonment, or disposition of roadways, utility rights- of- way, or other properties which may be suitable for the purpose of improving or expanding the national trails system shall cooperate with the Secretary of the Interior and the Secretary of Agriculture in order to assure, to the extent practicable, that any such properties having values suitable for trail purposes may be made available for such use.
- (c) Commencing upon the date of enactment of this subsection, any and all right, title, interest, and estate of the United States in all rights- of- way of the type described in the Act of March 8, l922 (43 U.S.C. 9l2), shall remain in the United States upon the abandonment or forfeiture of such rights- of- way, or portions thereof, except to the extent that any such right- of- way, or portion thereof, is embraced within a public highway no later than one year after a determination of abandonment or forfeiture, as provided under such Act.
- (d) (1) All rights- of- way, or portions thereof, retained by the United States pursuant to subsection (c) which are located within the boundaries of a conservation system unit or a National Forest shall be added to and incorporated within such unit or National Forest and managed in accordance with applicable provisions of law, including this Act.
- (2) All such retained rights- of- way, or portions thereof, which are located outside the boundaries of a conservation system unit or a National Forest but adjacent to or contiguous with any portion of the public lands shall be managed pursuant to the Federal Land Policy and Management Act of 1976 and other applicable law, including this section.
- (3) All such retained rights- of- way, or portions thereof, which are located outside the boundaries of a conservation system unit or National Forest which the Secretary of the Interior determines suitable for use as a public recreational trail or other recreational purposes shall be managed by the Secretary for such uses, as well as for such other uses as the Secretary determines to be appropriate pursuant to applicable laws, as long as such uses do not preclude trail use.
- (e) (l) The Secretary of the Interior is authorized where appropriate to release and quitclaim to a unit of government or to another entity meeting the requirements of this subsection any and all right, title, and interest in the surface estate of any portion of any right- of- way to the extent any such right, title, and interest was retained by the United States pursuant to subsection (c), if such portion is not located within the boundaries of any conservation system unit or National Forest. Such release and quitclaim shall be made only in response to an application therefor by a unit of State or local government or another entity which the Secretary of the Interior determines to be legally and financially qualified to manage the relevant portion for public recreational purposes. Upon receipt of such an application, the Secretary shall publish a notice concerning such application in a newspaper of general circulation in the area where the relevant portion is located. Such release and quitclaim shall be on the following conditions:
 - (A) If such unit or entity attempts to sell, convey, or otherwise transfer such right, title, or interest or attempts to permit the use of any part of such portion for any purpose incompatible with its use for public recreation, then

any and all right, title, and interest released and quitclaimed by the Secretary pursuant to this subsection shall revert to the United States.

- (B) Such unit or entity shall assume full responsibility and hold the United States harmless for any legal liability which might arise with respect to the transfer, possession, use, release, or quitclaim of such right- of- way.
- (C) Notwithstanding any other provision of law, the United States shall be under no duty to inspect such portion prior to such release and quitclaim, and shall incur no legal liability with respect to any hazard or any unsafe condition existing on such portion at the time of such release and quitclaim.
- (2) The Secretary is authorized to sell any portion of a right- of- way retained by the United States pursuant to subsection (c) located outside the boundaries of a conservation system unit or National Forest if any such portion is —
 - (A) not adjacent to or contiguous with any portion of the public lands; or
 - (B) determined by the Secretary, pursuant to the disposal criteria established by section 203 of the Federal Land Policy and Management Act of 1976, to be suitable for sale.

Prior to conducting any such sale, the Secretary shall take appropriate steps to afford a unit of State or local government or any other entity an opportunity to seek to obtain such portion pursuant to paragraph (l) of this subsection.

- (3) All proceeds from sales of such retained rights of way shall be deposited into the Treasury of the United States and credited to the Land and Water Conservation Fund as provided in section 2 of the Land and Water Conservation Fund Act of 1965.
- (4) The Secretary of the Interior shall annually report to the Congress the total proceeds from sales under paragraph (2) during the preceding fiscal year. Such report shall be included in the President's annual budget submitted to the Congress.
 - (f) As used in this section
 - (1) The term "conservation system unit" has the same meaning given such term in the Alaska National Interest Lands Conservation Act (Public Law 96-487; 94 Stat. 2371 et seq.), except that such term shall also include units outside Alaska.
 - (2) The term "public lands" has the same meaning given such term in the Federal Land Policy and Management Act of 1976.

AUTHORIZATION OF APPROPRIATIONS

SEC. 10. [16USC1249] (a) (1) There are hereby authorized to be appropriated for the acquisition of lands or interests in lands not more than \$5,000,000 for the Appalachian National Scenic Trail and not more than \$500,000 for the Pacific Crest National Scenic Trail. From the appropriations authorized for fiscal year 1979 and succeeding fiscal years pursuant to the Land and Water Conservation Fund Act (78 Stat. 897), as amended, not more than the following amounts may be expended for the acquisition of lands and interests in lands authorized to be acquired pursuant to

the provisions of this Act: for the Appalachian National Scenic Trail, not to exceed \$30,000,000 for fiscal year 1979, \$30,000,000 for fiscal year 1980, and \$30,000,000 for fiscal year 1981, except that the difference between the foregoing amounts and the actual appropriations in any one fiscal year shall be available for appropriation in subsequent fiscal years.

- (2) It is the express intent of the Congress that the Secretary should substantially complete the land acquisition program necessary to insure the protection of the Appalachian Trail within three complete fiscal years following the date of enactment of this sentence.
- (b) For the purposes of Public Law 95-42 (91 Stat. 211), the lands and interests therein acquired pursuant to this section shall be deemed to qualify for funding under the provisions of section 1, clause 2, of said Act.
- (c) (1) There is hereby authorized to be appropriated such sums as may be necessary to implement the provisions of this Act relating to the trails designated by paragraphs 5(a)(3), (4), (5), (6), (7), (8), (9) and (10): Provided, That no such funds are authorized to be appropriated prior to October 1, 1978: And provided further, That notwithstanding any other provisions of this Act or any other provisions of law, no funds may be expended by Federal agencies for the acquisition of lands or interests in lands outside the exterior boundaries of existing Federal areas for the Continental Divide National Scenic Trail, the North Country National Scenic Trail, the Ice Age National Scenic Trail, the Oregon National Historic Trail, the Mormon Pioneer National Historic Trail, the Lewis and Clark National Historic Trail, and the Iditarod National Historic Trail, except that funds may be expended for the acquisition of lands or interests therein for the purpose of providing for one trail interpretation site, as described in section 7(c), along with such trail in each State crossed by the trail.
- (2) Except as otherwise provided in this Act, there is authorized to be appropriated such sums as may be necessary to implement the provisions of this Act relating to the trails designated by section 5(a). Not more than \$500,000 may be appropriated for the purposes of acquisition of land and interests therein for the trail designated by section 5(a)(12) of this Act, and not more than \$2,000,000 may be appropriated for the purposes of the development of such trail. The administrating agency for the trail shall encourage volunteer trail groups to participate in the development of the trail.

VOLUNTEER TRAILS ASSISTANCE

- SEC. II. [16USC1250] (a) (1) In addition to the cooperative agreement and other authorities contained in this Act, the Secretary of the Interior, the Secretary of Agriculture, and the head of any Federal agency administering Federal lands, are authorized to encourage volunteers and volunteer organizations to plan, develop, maintain, and manage, where appropriate, trails throughout the Nation.
- (2) Wherever appropriate in furtherance of the purposes of this Act, the Secretaries are authorized and encouraged to utilize the Volunteers in the Parks Act of 1969, the Volunteers in the Forests Act of 1972, and section 6 of the Land and Water Conservation Fund Act of 1965 (relating to the development of Statewide Comprehensive Outdoor Recreation Plans).
 - (b) Each Secretary or the head of any Federal land managing agency, may assist volunteers

and volunteers organizations in planning, developing, maintaining, and managing trails. Volunteer work may include, but need not be limited to—

- (1) planning, developing, maintaining, or managing (A) trails which are components of the national trails system, or (B) trails which, if so developed and maintained, could qualify for designation as components of the national trails system; or
- (2) operating programs to organize and supervise volunteer trail building efforts with respect to the trails referred to in paragraph (1), conducting trail-related research projects, or providing education and training to volunteers on methods of trails planning, construction, and maintenance.
- (c) The appropriate Secretary or the head of any Federal land managing agency may utilize and to make available Federal facilities, equipment, tools, and technical assistance to volunteers and volunteer organizations, subject to such limitations and restrictions as the appropriate Secretary or the head of any Federal land managing agency deems necessary or desirable.

DEFINITIONS

SEC. 12. [16USC1251] As used in this Act:

- (1) The term "high potential historic sites" means those historic sites related to the route, or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. Criteria for consideration as high potential sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion.
- (2) The term "high potential route segments" means those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.
- (3) The term "State" means each of the several States of the United States, the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Trust Territory of the Pacific Islands, the Northern Mariana Islands, and any other territory or possession of the United States.
- (4) The term "without expense to the United States" means that no funds may be expended by Federal agencies for the development of trail related facilities or for the acquisition of lands or interest in lands outside the exterior boundaries of Federal areas. For the purposes of the preceding sentence, amounts made available to any State or political subdivision under the Land and Water Conservation Fund Act of 1965 or any other provision of law shall not be treated as an expense to the United States.

APPENDIX C ADMINISTRATIVE RESPONSIBILITY FOR EL CAMINO REAL DE TIERRA ADENTRO NATIONAL HISTORIC TRAIL



United States Department of the Interior

Bureau of Land Management
New Mexico State Office
1474 Rodeo Road
P. O. Box 27115
Santa Fe, New Mexico 87502-0115

P. O. Box 27115

nta Fe, New Mexico 87502-0115

National Park Service

Regional Office

P. O. Box 25287

Denver, CO 80225



January 9, 2001

Memorandum

To:

Secretary of the Interior

Through:

BLM Director & NPS Director

From:

Michelle J. Chávez

Karen Wade

State Director

Regional Director

BLM NM/OK/TX (BLM)

National Park Service, Southwest Region (NPS)

Subject:

Administration of the El Camino Real de Tierra Adentro National Historic Trail

Pursuant to our interagency discussions of January 5, 2001, we are recommending joint administration of the El Camino Real de Tierra Adentro National Historic Trail. We are confident that joint administration is in the public's best interest and will better assure the preservation and enhancement of this outstanding national resource. This approach acknowledges the history of investment and commitment made by both the BLM and NPS to this extraordinary public asset, while mobilizing the strengths of both agencies on behalf of the American public.

Key to the success of this joint administrative task, is the need to define long-term agency roles and responsibilities; including overall trail administration and on-the-ground, daily site and segment management. In order to achieve that goal, it will be necessary to complete an Interagency Comprehensive Trail Management Plan for trail administration. This will require the assigning of lead personnel for both NPS and BLM, and the preparation of a Pre-Plan Agreement. The Pre-Plan Agreement will outline the necessary components, budget and time-frame for the Interagency Comprehensive Management Plan.

Lead personnel will be named by the Intermountain Regional Director for NPS and the New Mexico State Director for the BLM. The Pre-Plan Agreement will be completed within 90 days of your concurrence with this approach. At a minimum, the Pre-Plan Agreement will include the following:

- Reiterate and confirm Congressional Intent; as defined in the designating legislation langua
- Describe existing agency assets and commitments of facilities, personnel and materials to the Camino Real Tierra de Adentro National Historic Trail
- Define agency roles and responsibilities for plan completion
- Describe interagency communication processes, protocol and lines of authority
- Identify Tribal, Federal, State and Community Partners (Mexico and US)
- Describe an Interagency Comprehensive Trail Management Plan/NEPA technical approach. At a minimum, this plan will include guidance for Natural and Cultural Resources, Interpretation and Education, Facilities Management, Research and Monitoring, Lands and Rights-of-Way, Events Coordination, Communication, Visitor Management.
- Identify planning time-lines
- Identify necessary knowledge and skill requirements for plan completion
- Identify key personnel from BLM, NPS and other planning partners necessary to complete the technical approach
- Identify overall project budget, funding sources, and budget administrative process
- Develop a comprehensive community involvement plan that is integral to all steps of the planning/NEPA process

We look forward to your advice on this proposal, and are prepared to move forward on this outstanding project.

Michelle J. Chávez

State Director

BLM, NM/OK/TX

Karen Wade

Regional Director

NPS, Intermountain Region



THE SECRETARY OF THE INTERIOR WASHINGTON

JAN 19 2001

To:

Director, Bureau of Land Management

Director, National Park Service

From:

The Secretary

Subject:

Administrative Responsibility for El Camino Real de Tierra Adentro National

Historic Trail

In accordance with the National Trails Systems Act of 1968, I direct that administrative responsibility for the El Camino Real de Tierra Adentro National Historic Trail be assigned jointly to the Bureau of Land Management and the National Park Service. This assignment is consistent with the recommendation of the two agencies (Memorandum from the Bureau of Land Management New Mexico State Director and the National Park Service Intermountain Region Regional Director, January 9, 2001, copy attached) and acknowledges the long history of cooperation and coordination between the two agencies in management of the Trail.

Joint administration of the Trail is a continuation of the commitment from each agency and will be a great asset in assuring preservation and enhancement of this outstanding national treasure.

Attachment

APPENDIX D COMMUNITY MEETING RESULTS

Possibility statements are descriptions of desired future conditions for El Camino Real de Tierra Adentro NHT, and have formed the basis of the alternatives. These statements were developed during community meetings in 2001, and could be implemented through community action and partnerships.

Possibility statements from El Paso, Texas - October 15, 2001

- Interpretation, preservation, restoration.
- It is essential that the route, including hiking and interpretive trails, follow the original historic route. To facilitate the project, the natural environment (riparian and desert) should be preserved and restored; then, there should be recognition of where historic events took place; and finally, there needs to be a unifying theme especially in signage.
- I live in a community, where we should develop El Camino Real as a backbone uniting local and regional historic, cultural, and community resources in an interpretive way.
- More and enhanced parks and trails, to foster outdoor recreational opportunities and appreciation of natural and cultural community.
- Regional coordination, promotion, preservation, and interpretation of the Camino Real.
- Education, access, preservation, economic development.
- We live in a community where fragmentation has been eliminated. A central point of responsibility involving all the

communities on the Río Grande, including bi- national politicians and educators, together have developed a cohesive plan to foster a bi- national understanding of El Camino Real.

 A long- trail theme, which ties local communities together and allows events on the trail; incorporates existing and new features to be used for the protection of natural resources; and benefits and ensures safety of the people, which promotes knowledge and understanding of the trail.

Possibility statements from Socorro, New Mexico - October 16, 2001

- Develop a range of recreational opportunities that contribute to the economic benefit of communities and Socorro and Sierra Counties, including birding, fishing, hot springs, horseback riding, National Radio Astronomy Observatory, radio, Battle of Valverde re-enactment, and other special events.
- Keep our culture alive.
- An El Camino Trail Passport. Each community to have been facilitated with educational and economic advantages to encourage participation in multifaceted visitation, including ecotourism, edutourism, and agritourism. Each facility to have individual stamps. Revenue will be generated from visitors to each site. Money (funding) flowing in by the wheelbarrow loads.
- Cultural and transportation corridor.
 Overall cultural immersion. Connections with Mexico and Spain with physical artifacts/demonstrations. Education

including, history, archeology, high points, and cultural portrait. Preservation/protection of trails; use previously impacted areas.

Possibility statements from Albuquerque, New Mexico - October 17, 2001

- Make the trail into a living experience that is accessible to people with disabilities, bicycles, horseback, and walkers – no motor vehicles.
- A comprehensive plan, focusing on preservation, and multiple stories/perspectives, providing public interpretation for *all* people in English and Spanish through a variety of educational methods.
- Quality El Camino Real history and heritage is told by New Mexico people who know the history and resources.
 Interpretation is offered all along El Camino Real to both visitors and local people/communities, and inspires people to protect resources. The international nature of the trail is emphasized: past, present, and future.
- Link communities and community centers along the trail, with emphasis on education, historic site identification, and Spanish emphasis and contribution of the trail, in both U.S. and Mexico.

• Trail offers opportunity to go on an interactive adventure to learn about the [history and culture of New Mexico trade and travel] evolution of the trail consisting of the trade, travel, culture, and recreation.

Possibility statements from Española, New Mexico - October 20, 2001

- Each community being able to tell their own story through visitor centers/interpretive centers/cultural centers along the trail, with centers highlighting the significance of history, traditions, and way of life. Centers will serve to promote, preserve, and protect history and resources pertaining to that community, including living exhibits, oral histories, and promoting local crafts involving youth and peoples of the communities.
- Interpretive centers with educational programs on El Camino Real communities.
- Make the trail a living experience for residents and visitors through awareness of cultural heritage.
- Information, communication, and outreach by awareness through maps and signs and interdisciplinary studies preserving multi- cultural history.

APPENDIX E HIGH-POTENTIAL HISTORIC SITES

National Trails System Act, SEC. 12. [16USC1251] As used in this Act:

(1) The term "high-potential historic sites" means those historic sites related to the route, or sites in close proximity thereto, which provide opportunity to interpret the historic significance of the trail during the period of its major use. Criteria for consideration as high-potential sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion..

Mission Ysleta, Mission Trail

El Paso, Texas NATIONAL REGISTER

Era: 17th, 18th, and 19th Century

Mission Ysleta was first erected in 1692. Through a series of flooding and fire, the mission has been rebuilt three times. Named for the patron saint of the Tiguas, the mission was first known as San Antonio de la Ysleta. The beautiful silver bell tower was added in the 1880s.

The missions of El Paso have a tremendous history spanning three centuries. They are considered the longest, continuously occupied religious structures within the United States and as far as we know, the churches have never missed one day of services.

Mission Socorro, Mission Trail

El Paso, Texas

Era: 17th, 18th, and 19th Century

Built of adobe in 1692, Mission Socorro also experienced natural disasters through her history leading her to be rebuilt several times. The famous Statue of Saint Michael was brought to the mission from Mexico by oxcart in the early 1800s. One will also find an excellent example of

Indian and Spanish architecture including carved ceiling beams called "vigas" and bell tower.

San Elizario, Mission Trail

El Paso, Texas NATIONAL REGISTER

Era: 17th, 18th, and 19th Century

San Elizario was built first as a military presidio to protect the citizens of the river settlements from Apache attacks in 1789. The structure as it stands today has interior pillars, detailed in gilt, and an extraordinary painted tin ceiling.

Oñate Crossing

El Paso, Texas

Era: 17th, 18th, and 19th Century

The Oñate Crossing of the Río Grande in 1598 is commemorated at this small park next to the river. The original crossing was near here. Once Oñate and his contingent of settlers crossed the river he held a thanksgiving in what is now the United States. One of the first bridges to be erected in the area would have been in or very near the location of the crossing.

Boundary Marker # 1

Sunland Park, New Mexico NATIONAL REGISTER Era: 19th Century

Boundary Marker # 1 is a four-sided pyramid of white limestone on the West bank of the Río Grande on the Mexico- New Mexico border. It is the first boundary marker placed after the setting of the international boundary in 1855. There is a small park here on each side of the border where people from each nation can gather and mingle together.

Keystone Park

El Paso, Texas ARMS (41 EP 494) (archeological site designation) Era: 17th, 18th, and 19th Century

Keystone Park is a wetlands site in additional to an archeological site. It is slated for development. It is located along the edge of El Paso's Lower Valley in the path of what was to become the Camino Real trail from Mexico to Santa Fe. During the Archaic period, 4000 years before the appearance of the Spanish, prehistoric Native Americans established a village at the edge of the Río Grande. The Indians built pit houses with shallow, basin-shaped floors and covered with an igloo-shaped or tipi-like structure of timber and branches, plastered with a thin layer of clay. The people settled close to the river and marsh, gathering wild plants and hunting animals such as rabbits.

Brazito, Bracito Battlefield, Paraje

Mesquite, New Mexico North of Mesquite, NM and south of Brazito Schoolhouse off NM 478. Era: 18th and 19th Century

Significance: Long- time paraje; mail exchange point on the Camino Real; site of the first land grant in southern New Mexico; site of the Battle of Bracitos during the Mexican-American War.

Annotated History: This campsite, between the east bank of the Río Grande and the Organ Mountains, was used by Lafora on 7 August 1766. He located it some 20 leagues north of the place where he crossed the river. From this paraje, Lafora went to Robledillo (Alessio Robles 1939:90-91).

Robert Julyan places the modern "Brazito" five miles south of Las Cruces, New Mexico, and noted that only a schoolhouse remains of the settlement. He added that in 1776 it was known as "Huerto de los Brazitos" and was part of a the nineteenth- century "Brazito Land Grant" to Juan Antonio García, which stretched along the Río Grande for eight miles south of Las Cruces (Julyan 1996:49). Rancho del Bracito was the exchange point for mail runs between Santa Fé and Chihuahua in the 1820s (Bloom 1913:16; Moorhead 1957:112).

On Christmas day, 1846, the Missouri Volunteers under Colonel Alexander W. Doniphan defeated a Mexican unit at the Battle of Bracitos and then went on to occupy El Paso del Norte and invade Chihuahua. George Rutledge Gibson, a soldier in Doniphan's army, wrote that the name Bracito referred to a bend in the river just above the battlefield. The U.S. army had stopped to camp by the river just north of the site where the engagement took place. The Mexican army was at an elevation and had the mountains to their backs as the battle began (Bieber 1935:300,303-305,308-309). A contemporary map reproduced in the 1997 edition of the Hughes journal gives little context but appears to show the river at its closest approach to the hills. It also shows the island formed by the Bracito from which the name was derived (Hughes 1997:133). In February 1847, Susan Shelby Magoffin visited the site of the battle and described it as a "perfect plain" (Drumm 1926:202). According to Max Moorhead, the "Paraje de Bracitos" was "on a little arm of the Río Grande encircling a sandy island" (Moorhead 1958:19).

A soldier, Marcellus Ball Edwards, recounted being in a camp about a mile below Doña Ana on 20 December 1846. His company was directed to go a few miles and set up an outpost, but went 12 according to his estimate, before finding a suitable place. There, the river ran close enough to the hills on the east side of the valley

that the road ran over sand hills. On Christmas Eve, this company went another mile, and on Christmas, twelve miles to the site of the battle. That adds up to an estimate of 26 miles from Doña Ana and the site of the Battle of Bracitos (Bieber 1936:224-228). John Taylor Hughes, another soldier with Doniphan, confirms that the camp described by Edwards was about 12 miles from Doña Ana, but placed the camp one mile below as 15 from Doña Ana. He thought it another 18 from there to Bracito (Hughes 1997:130-131). Gibson recalled marches of 12 and 14 miles, a total of 26, between a camp near Doña Ana and the battlefield (Bieber 1935:298-300). The consensus of these estimates is that it was some 26 miles from the town of Doña Ana to Bracitos by the road on which the army traveled. When he passed by in 1855, W.W.H. Davis placed Fort Fillmore, built in 1851, a few miles above the battlefield of Bracito (Davis 1938:212; Frazer 1965:99).

There is some historiographical confusion surrounding the relative locations of historical sites in this section of the Río Grande valley. Max Moorhead wrote that the paraje was a few miles south of the site of the 1846 battle (Moorhead 1958:19). William A. Keleher located Fort Fillmore on the site of Bracito and estimated that it was about four miles south of Las Cruces, about the same distance north of Mesilla, New Mexico, and 36 miles from El Paso, Texas (Keleher 1952:196,n.9). Robert W. Frazer placed Fort Fillmore six miles south of Mesilla (Frazer 1965:99). However, Robert Julyan put Fort Fillmore, 1852-1863, six miles south of Las Cruces and one mile east of Bracito (Julyan 1996:134).

The precise location of the point on the Río Grande known as el Bracito, by which the paraje was known, can best be identified from testimonies and evidence given in the Bracito (Hugh Stephenson), Doña Ana, Mesilla, and Santo Tomás de Iturbide land grant cases before the Surveyor General and Court of Private Land Claims. According to testimony, in 1864 floodwater caused the Río Grande to break away from its old channel and change course substantially. The eventual disposition of the above named grants hinged upon the definition of the

riverbed of the 1850s. Through witnesses and surveys, the bed of the Río Grande before 1864 was determined. Therefore, the boundaries of those grants can be taken as the riverbed of the 1850s. It is also clear that the course of the river could have changed more than once since the opening of the Camino Real. That cautionary note should make researchers wary of unequivocal statements regarding the locations of the road, paraje, or the river bed in the lower Río Grande Valley of centuries ago.

Most importantly for locating El Paraje de los Bracitos, descriptions of the Bracito Grant show that at its inception its northwestern corner was on the old river bed at the point that was known as Bracito in 1805. In subsequent testimonies, descriptions, and maps, that description is sustained. At its inception it was specified that the grant began at a point known as "el Brasito" and that name continued to be used to describe the same location. In 1820, it was specified that the acequia of the same name was taken from the river at "el Paraje que nombran el Brasito". In the documents filed after the United States occupation of New Mexico that particular acequia was used as the landmark (Hugh Stephenson Grant:892,901,964,passim).

In his map, "Plano del Río del Norte desde San Elceareo hasta el paraje de San Pasqual" (1773), Bernardo de Miera y Pacheco shows Bracitos at the southernmost eastward bend of the river that defined the Ancón de Doña Ana before the flood of 1864 (Adams and Chávez 1956:268). The point at which the northern boundary of the Bracito or Stephenson Grant leaves the old river bed, its western boundary, and extends east is, then, the place given in 1805 as El Bracito. That also conforms to the Miera y Pacheco map. The paraje, while not a precise and enclosed point, was likely centered on that location.

Fort Fillmore

New Mexico Era: 19th Century

Along the Río Grande not far from the Mexican border and a few miles southeast of the town of Mesilla, this tiny adobe fort was founded in 1851 to control local Apaches. by the end of the 1850s it had declined and fallen into disrepair. In 1861, however, spurred by rumors of Confederate invasion of New Mexico, the Army reinforced the fort. During July a force of 250 Texans took Mesilla. Failing in an attempt to liberate the town, the garrison abandoned the fort and marched toward Fort Stanton, but was captured east of las Cruces. The next summer, California Volunteers temporarily occupied the post before moving into Mesilla.

Issue of El Palacio, Summer 1967, vol. 74, no. 2 (Fort Fillmore issue).

La Ranchería (Las Cruces)

Era: 18th Century

Significance: Though not an often-mentioned *paraje*, this was a frequent habitation of local Indians and is now the site of Las Cruces, the largest city in southern New Mexico.

Annotated History: On 22 May 1726 Rivera followed the bank of the Río Grande eight leagues and stayed at a *paraje* next to the river called Ranchería, which used to be inhabited frequently by the Mansos Indians before they were converted to pueblo life (Alessio Robles 1946:49).

A comparison of the distances given by Rivera and Lafora in the lower Río Grande valley shows Ranchería Grande a little north of Bracito. The referenced map ("Plano del Río del Norte," 1773) by Bernardo de Miera y Pacheco shows Doña Ana and Bracito at what appear to be eastward bends of the river that defined the Ancón de Doña Ana before the flood of 1864. The Ranchería Grande is depicted as in the bend between those two points, which takes in the area of Las Cruces (Adams and Chávez 1956:268).

Mesilla Plaza (La Mesilla)

Mesilla NATIONAL REGISTER, NATIONAL HISTORIC LANDMARK Era: 18th and 19th Century In 1848 the Treaty of Guadalupe Hidalgo established the area west of the Río Grande occupied by present- day Mesilla as part of Mexico. (In local usage, it is more often called Mesilla or Old Mesilla.) Las Cruces and Doña Ana, on the east bank of the river, were in American territory. Anglo- Americans arrived to claim land in such force that many native Mexicans moved away. Those who preferred to remain in the area but on Mexican soil crossed the river and settled on a small rise in the river valley. The settlement, known as Mesilla (little table), included about half the population of Doña Ana.

In 1853 the Mexican government issued the Mesilla Civil Colony Land Grant and the town was formed. In 1854 the Gadsden Purchase was negotiated, acquiring from Mexico a strip of land south of New Mexico and Arizona which stretched from Texas to California- 29,142,400 acres for \$10 million- a wedge of level land which would eventually serve as the southern railroad route to the Pacific coast. The erstwhile Mexican residents of Mesilla found themselves in the United States.

The new government honored land owner-ship under the Mexican land grant. On November 16, 1854, the treaty was symbolically formalized in the plaza at Mesilla. The flag of Mexico was lowered, and the flag of the United States was raised. Officials and soldiers from both governments were on hand to see that it was done right. Local Mexican officials swore allegiance to the new government. Residents who did not want to live under it were "notified to leave and take refuge in Mexican dominions."

In 1858 Mesilla became a stop on the Butterfield Overland Mail route which linked St. Louis and San Francisco. Waterman L. Ormsby, a reporter for the New York Herald, rode the first westbound stage; he described the community. There were more than three thousand inhabitants. He saw "irrigated fields groaning with the weight of heavy crops." But he was not impressed by the cluster of onestory adobe houses; they looked like "miserable dog kennels."

On July 25, 1861, the Civil War came to Mesilla. Lt. Col. John R. Baylor, commanding 258 Texan troops in Confederate service, occupied the village without firing a shot and settled down to await the arrival of Union forces from nearby Fort Fillmore.

Baylor forthwith issued a proclamation taking possession of all of New Mexico south of the thirty-fourth parallel of north latitude "on behalf of the Confederate States of America." He dubbed it the Territory of Arizona: "The city of Mesilla is hereby designated as the seat of government of this Territory." Baylor was appointed governor.

Thirteen months later, in August, 1862, the "California Column" under Gen. James H. Carleton recaptured Mesilla and the surrounding area for the Union.

During its heyday, Mesilla was a bustling community. George Griggs, a lifelong resident, told of activities in his book History of the Mesilla Valley or The Gadsden Purchase. Its prime season began on December 12 with the fiesta of Our Lady of Guadalupe and ended on March 2 with the fiesta of St. Alvino, the patron saint of the town. People came from as far away as Santa Fe, Tucson, and Chihuahua. Ladies came to buy velvet gowns and satin shoes; men came to attend bullfights and street fairs. Mesilla had cock pits, billiard halls, theaters, and even bowling alleys for the entertainment of visitors. There were flour mills and stores with supplies for the farmers who tilled the rich irrigated farms in the Mesilla Valley.

Griggs cited one firm that sent eighty-three wagons from Kansas City to Mesilla, each loaded with 5,000 pounds of merchandise. That firm paid \$30,000 in freight bills on a wagon train containing \$126,000 worth of goods which sold within three weeks at a profit of \$51,000.

Mesilla's eminence faded in 1881 when the Santa Fe Railroad was routed through Las Cruces instead of Mesilla.

Doña Ana Paraje

Doña Ana, New Mexico NATIONAL REGISTER Era: 18th and 19th Century

Significance: One of the noted parajes of the late eighteenth and nineteenth centuries, the name also attached to a section of the Río Grande, to nearby mountains, and to a settlement that still exists. Pedro Tamarón y Romeral, Bishop of Durango, author of Demostración del vastísimo obispado de la Nueva Vizcaya (1765), visited this site in his inspection of churches and missions in Chihuahua and New Mexico in 1760.

Annotated History: On II May 1760 Bishop Tamarón described Doña Ana as the sierra on the east side of the river. He camped between Doña Ana and the river (Adams 1953:199).

Lafora described a place between mountain ranges, which he labeled Doña Ana, to the east, and Roblerito, across the river to the west. The name Doña Ana is given elsewhere as the name of a ranchería (Alessio Robles 1939:91).

In August 1846, Wislizenus mentioned that "Doñana" was the first town reached south of the Jornada del Muerto. He said that it was 12 miles south of Robledo but did not describe it as he passed through (Wislizenus 1848:39). On 23 December 1846, Gibson arrived in Doña Ana after what he estimated was a ten-mile trip from Robledo (Bieber 1935:298). In early November 1847, Philip Gooch Ferguson, with an army unit, noted that he camped a mile below the town of Doña Ana (Bieber 1936:337-338). In 1855, U.S. Attorney W.W.H. Davis slept with his stock in Doña Ana's corral since there were no public accommodations (Davis 1938:210-211). According to Julyan, the original 1839 town site was on a hill north of the present village (Julyan 1996:112-113).

The western boundary of the Doña Ana Grant was determined to be the bed of the Río Grande as it ran before the flood of 1864. The northeastern corner of the grant was the head of the old Doña Ana Acequia, "about three miles above the pueblo of Doña Ana at a point where the Río Grande touches the hills on the East; the

R.R. track is near the point." It is not entirely clear what the bed of the river was above that point but it evidently came from the west. In testimony related to determining that boundary, Ancón de Doña Ana was described in terms of how the river ran in 1852. At the head of the Doña Ana and Las Cruces Acequia, "the Río Grande makes a bend leaving the foothills on the Eastern bank of said river and bearing Southwestwardly and nearing the foothills on the western bank of said river and continues near the western foot hills of said western bank until it reaches the 'barrancas del brazito' before mentioned, which place was formerly the head of the acequia of Don Juan Antonio Garcia" (or Bracito). The latter point was the boundary of the Doña Ana and Bracito grants and the location of El Bracito (Doña Ana Grant:170;224;passim). In his "Plano del Río del Norte" (1773), Bernardo de Miera y Pacheco depicted Doña Ana at the northern bend of the two eastward points on the river that defined the Ancón de Doña Ana before the flood of 1864 (Adams and Chávez 1956:268).

Given the descriptions of the old river, Miera y Pacheco's map, and the first locations of the town, it appears that the point originally called Doña Ana was the northern bend of the Ancón de Doña Ana. Unfortunately, we have no distance estimates from the colonial period with which to place Doña Ana relative to other parajes. However, the name is also mentioned in reference to the proximity of mountains to the river and at the suggested place the mountains do approach the river and road. The sketchy estimates given in the 1840s conform to the relationship of that point to Robledo and Bracito. It is reasonable to suggest that the area was popular because travelers could reach the river without descending into the sandy and brambly flood plain as they would for many miles to the south. The paraje of Doña Ana, such as it was, probably took in a larger area.

Fort Selden State Monument

Radium Springs NATIONAL REGISTER Era: 19th Century

Situated on a slight rise overlooking the Río Grande at the lower end of the Jornada del Muerto, Fort Selden (1865-90) protected settlers in the Mesilla Valley and travelers on the Camino Real. The garrison, frequently harassed by Indians, took part in the campaigns against the Apaches until the fort's inactivation in 1877. In 1880, during the campaign against Geronimo, troops reoccupied it as a base to patrol the Mexican border. After Geronimo's surrender, it was abandoned for good in 1890.

Capt. Arthur MacArthur served at Fort Selden in 1884. It was there that his son, Douglas A. MacArthur, learned to ride and shoot before he learned to read or write.

Eroding adobe walls of some 25 buildings stand as high as 10 feet or more. A visitor center/museum on site interprets the history of the fort.

Robledillo, Robledo

Era: 17th, 18th, and 19th Century

Significance: One of the enduring and popular *parajes*. Its importance stemmed from its easy access to water, forage, and wood, and its proximity to the Jornada del Muerto.

Annotated History: Between 14 May and 21 May 1598 the Juan de Oñate expedition traveled about four leagues after passing the Organ mountains. The road was very primitive, and the train had to be divided. On the 21st they buried Pedro Robledo but did not refer to the burial site as Robledillo (Pacheco, Cárdenas y Torres 1871:XVI.246-247). According to Marshall and Walt, the site was called "La Cruz de Robledo" after the burial place of Robledo (Marshall and Walt 1984:235).

In November 1681, while marching north, Otermín mentioned that it was 32 leagues from Robledo to the next permanent water. He made stops at *parajes* which he called Robledo and Robledo el Chico, one league apart, on the first and second of February, 1682 (Hackett and Shelby 1942:II.202; II.365). It is likely that others referred to the area containing both sites as part of the same *paraje*.

Vargas estimated the distance from Ancón de Fray García to Robledo at 24 leagues, placing it 29 leagues from El Paso (Kessell and Hendricks 1992:369).

On 23 May 1726 Rivera left La Ranchería and traveled seven leagues northwest through land with some small hills, glades and mesquite thickets, then stayed at a *paraje* called Robledillo (Alessio Robles 1946:49).

On II May 17, 1760 Bishop Tamarón reached the "dread site" of Robledo. The river flowed between two sierras; the one on the west he called Robledo, and the one on the east Doña Ana. He camped between Doña Ana and the river and described the place as frightening because of attacks by "infidel" Indians, although he didn't personally experience any attacks (Adams 1953:199).

On 8 August 1766, Lafora named "Ancón de Roblerito" as a campsite on the bank of the Río Grande. It was also called "Robles" and "Paraje de Robledillo." Lafora placed this point nine leagues from Bracitos and 29 leagues upriver of his crossing near "Presidio del Paso." It was in a hilly area with brush that was thicker than it had previously been and between mountain ranges which he labeled Doña Ana, to the east, and Roblerito, across the river to the west (Alessio Robles 1939:91).

Josiah Gregg gave little description of his 1833 crossing of the Jornada del Muerto but did note that he was grateful to reach "Robledo" on the river, with its abundance of water and wood (Gregg 1933:260). The caravan carrying Wislizenus "at last" arrived at the river after their crossing of the Jornada del Muerto on 5 August 1846. Although Wislizenus wrote that the country was mountainous and described the mountains to the east, calling them the "Organon," or Organ Mountains, they were well known as such, for Antonio Otermín had named them "Los Organos" in 1680. Wislizenus

also noted that "Doñana," which was the first town south of the Jornada, was 12 miles to the south (Wislizenus 1848:39). Gibson, having stopped at San Diego, was less anxious to reach "Robledo" on 22 December 1846, but he did note that it was the end of the Jornada and next to the river. He thought it fourteen miles from San Diego and ten from Doña Ana. He described a wide valley with plenty of wood and grass (Bieber 1935:297).

Fort Selden was established in the same area, in part to protect the entrance of the Camino Real into the Jornada del Muerto, in 1865 and operated intermittently until 1889 (Frazer 1965:103). The *paraje* of Robledillo or Robledo was not an exact point on the Río Grande. It was the wide valley, well supplied with forage and wood, adjacent to the dry, barren, Jornada del Muerto, and stretched along and away from the river.

Turney states that the trail across the Jornada north from Fort Selden is marked by a line of mesquite bushes sewn by oxen who were fed on mesquite beans that were often passed without being well digested (Turney 1996:181).

Paraje del Perrillo

Era: 17th, 18th, and 19th Century

Significance: The water source and hills of this name were noted by many travelers from Oñate through the nineteenth century.

Annotated History: On 23 May 1598 the Oñate expedition traveled about four leagues, doing poorly because of the lack of water. They were traveling five or six leagues east of the Río Grande. After one of their dogs returned with muddy paws, they searched for some water holes. Captain Gaspar Pérez de Villagrá and Cristóbal Sánchez each found one, not far away in the direction of the river (Pacheco, Cárdenas y Torres 1871:XVI, 247-248).

In 1680, Otermín mentioned stops at El Perrillo but gave no descriptions or details of distances traveled (Hackett and Shelby 1942:II, 202;II, 365). On the evening of 27 August 1692,

Vargas stopped at El Perrillo, but gave no distance from San Diego or Las Peñuelas (Kessell and Hendricks 1992:371). Rivera left San Diego on 25 May 1726 and traveled north-northwest through flat land, passing the Cerros de Perrillo to the east after six leagues (Alessio Robles 1946:49).

On 9 August 1766, Lafora referred to a campsite and to a nearby mountain range as simply "Perrillo." After traveling ten leagues from Robledillo, he camped near pools of rainwater identifing the mountains to the east as the Organ range and to the west as the Sierras del Perrillo and del Muerto. He described the Río Grande as running through a canyon beyond the mountains to the west (Alessio Robles 1939:92).

Wislizenus called this spring "Barilla" (likely a corruption of Perrillo which Gibson below calls "Perrilla") when his party stopped there on 3 August 1846. They had been at a spring to the north, probably El Alemán, which they found dry and then had pushed on 20 miles until they found sufficient amounts of stagnant water to provide for their stock there. Wislizenus observed that spurs from the mountains to the east approached the area and that the soil was more solid than it had been to the north (Wislizenus 1848:39).

Gibson gave the name "perilla" to "an isolated mountain in the valley, which here expands, giving the appearance of two valleys." He also observed that the road veered to the right at this point and was not as flat as it had been. He made it ten miles from El Alemán and ten from San Diego (Bieber 1935:296-297). The Baptist missionary Hiram Read wrote that the "Ponds of Perillo," which he translated as "Ponds of Peril," were three miles south of the Point of Rocks and 22 miles from Robledo (Bloom 1942:136).

The spur, hills, or mountains mentioned by the chronicles conform to the Point of Rocks formation. Oñate reported that the pools (*aguajes*) found by Villagrá and Cristóbal Sánchez were toward the river. Upside Down Tank and Alivio are both to the west of, or toward the

river from, the Point of Rocks formation. The road and rail line veer to the right, à la Gibson's description of the road, a little further north at Upham; however, the places mentioned are more likely matches for their nearness to the Point of Rocks and distance from Alemán and San Diego. Read seems to have been at Rincon Arroyo, on which maps show a small pond at about the right place. Point of Rocks Tank, south of Point of Rocks, is also a possibility.

Paraje del Alemán

Era: 17th, 18th, and 19th Century

Significance: The name Alemán (The German) resulted, vicariously, from a seventeenth- century inquisition case involving the German trader from Sonora, Bernardo Gruber, and remained attached to a nineteenth century stage stop and post office. A ranch maintains the name "Aleman" into the twentieth century and beyond.

Annotated History: The name is thought to refer to Bernardo Gruber, a German trader from Sonora who became a target of the Holy Office of the Inquisition in New Mexico in 1668. Gruber was a prisoner for nearly two years before he made his escape, on June 22, 1670, with the aid of his Apache servant, Atanasio. Atanasio later reported that he and Gruber had passed Senecú and Fray Cristóbal and made it through the "hot wasteland" to Las Peñuelas, which was dry. Atanasio went south to San Diego in search of water and returned two days later to find Gruber gone. Atanasio speculated that Gruber had taken one horse and gone south on the Camino Real, though Atanasio himself had been on that stretch of road and had not seen Gruber. Atanasio tried unsuccessfully to locate Gruber and then decided to surrender and report the incident at Senecú. Search parties were sent out in vain. Soon, however, remains that were thought to be Gruber's were found by accident at a point which would later be called Alemán. The discoverers related that they had found Gruber's remains while traveling between Las Peñuelas and El Perrillo, or south of Peñuelas. Later it was said that Atanasio murdered Gruber.

Gruber's ordeal is also thought to have inspired the name Jornada del Muerto (Sánchez 1996:97-104). This is the only time that Las Peñuelas and Alemán can be found in the same account. A comparison of distance estimates given for Alemán and Las Peñuelas suggests that the former may have supplanted the latter in the lore of the Jornada.

On 10 August 1766, Lafora passed by el *paraje* del Alemán, six leagues north of El Perrillo and eight south of Laguna del Muerto, in the Jornada del Muerto of New Mexico. He found the pools, which often gathered rainwater, dry (Alessio Robles 1939:92-93).

"Alamos" was the name used by Wislizenus to describe what was, on 3 August 1846, a dry pool, some 20 miles north of *Paraje* del Perrillo and sixteen miles south of Laguna del Muerto. He camped four miles south on a grassy hill (Wislizenus 1848:39). On 20 December 1846, Gibson arrived at El Alemán, fourteen miles from Laguna del Muerto and ten from El Perrillo (Bieber 1935:296-297). In September 1851, Hiram Read arrived at "Alaman," which he thought to be 40 miles from Fray Cristóbal over a road as good as if it were "McAdamized", or paved (Bloom 1942:136).

Later in the nineteenth century, the name Aleman was continued in a stage stop, post office, and ranch. The name Martin's Well was given to the same site after John Martin, who dug a well and operated an inn at *Paraje* del Alemán (Julyan 1996:12; Cohrs 1974 (Unpublished MS); Marshall and Walt 1984:242).

Las Peñuelas

Era: 18th Century

Significance: A place name well known in the seventeenth and early eighteenth centuries, it may have referred to a site later called by other names.

Annotated History: On 24 May 1598, the Oñate expedition traveled four leagues north of the *Paraje* del Perrillo without any water. They finally came to some small pools next to *Piedras*

de Afilar where they drank and rested. They took their horses to the river, more than six leagues off to their left, where it was extremely hilly and very rough (Pacheco, Cárdenas y Torres 1871:XVI, 248-249). Marshall and Walt place Oñate at Las Peñuelas on this day (Marshall and Walt 1984:237). The association of Oñate's camp with Peñuelas, or with Alemán, is reasonable. Through the rest of the Jornada del Muerto, Oñate's journal becomes confused. It appears that there is data missing from it, making any conclusions based upon that source hazardous.

Vargas went from El Perrillo to Las Peñuelas on 28 August 1692, but did not estimate the distance of his journey. He did note that it was six leagues from Las Peñuelas to El Muerto (Kessell and Hendricks 1992:371).

On 25 May 1726 Rivera left San Diego and traveled eleven leagues north- northwest through flat land, leaving the hills called "el Perilloto" the east, and stopped at an uninhabited *paraje*, with no water or fire- wood, called Las Peñuelas (Alessio Robles 1946:49).

Julyan identifies Las Peñuelas as Point of Rocks (Julyan 1996:199). Such an association is obvious on the basis of the name alone. However, chroniclers who visited both the hills and water source of Perrillo and Peñuelas noted considerable, and variant, distances between the two. A comparison of distance estimates suggests that Peñuelas and Alemán were the same, or at least were very near one another. Perhaps the rocks in the name and in Oñate's description of his camp of 24 May refer to Prisor Hill. It is by Aleman Draw and has a well marked on its western flank; however, at about 2 leagues southeast of the modern locale of Aleman it may be too far off the track. Black Hill is further north and a little west. In pinpointing any of these parajes the relationships between them must be considered.

Laguna del Muerto

Era: 17th, 18th, and 19th Century

Significance: This seasonal water source was a consistent camp from at least 1692 and well

into the nineteenth century. Even when dry, this was an important camp as a base for water runs to Ojo del Muerto.

Annotated History: Vargas reported that he went six leagues from Las Peñuelas to El Muerto, or *Paraje* del Muerto, on 29 August 1692 (Kessell and Hendricks 1992:372-373).

On 26 May 1726 Rivera left Las Peñuelas and traveled six leagues before stopping along the road. Because there was no water or wood it was decided to lead the horses to the Laguna del Muerto with a large escort because of the numbers of hostile Indians that inhabited the area (Alessio Robles 1946:49-50). It seems clear that Rivera's party actually stopped in the area known as Laguna del Muerto and then sent the horses to Ojo del Muerto, a place known for the danger of hostilities.

Lafora camped at the Laguna del Muerto on 10 August 1766 although it was dry. He reported that it was 14 leagues north of Perrillo, eight north of Alemán, and ten leagues to the southeast of the *Paraje* de Fray Cristóbal at the north end of the Jornada del Muerto of New Mexico (Alessio Robles 1939:93).

In 1833 Josiah Gregg found Laguna del Muerto dry. He described it as "a sink in the plain of a few rods in diameter, and only filled with water during the rainy season." He thought it five or six miles to Ojo del Muerto (Gregg 1933:259).

On 2 August 1846, Wislizenus found this lakebed dry, so his party went to water their animals at the nearby Ojo del Muerto. He put Laguna del Muerto 22 miles from Fray Cristóbal and 16 from "Alamos" (Wislizenus 1848:38). In the same year in December, Gibson's party had the same experience. He wrote that it was 14 miles from El Alemán and 26 miles from Fray Cristóbal (Bieber 1935:296).

Cedar Lake, Engle Lake, and a small, unnamed lake north of Engle Lake match the various distance estimates given for Laguna del Muerto. All that is certain is that it was a basin that periodically held water and was east of Ojo del Muerto and the later site of Fort McRae.

Fray Cristóbal

Era: 17th, 18th, and 19th Century

Significance: Named for a member of the Oñate entrada, the Paraje de Fray Cristóbal remained important throughout the period in which the Camino Real was in use. Oñate's men facetiously remarked that the outline of the ridge of the mountain near present Elephant Butte Reservoir looked like the profile of Fray Cristóbal, saying he was "feisimo" (politely, not very good looking). It was described as a general area rather than a particular point but can be defined by its proximity to both the Río Grande and the Jornada del Muerto. In the nineteenth century, Fray Cristóbal became Fra Cristobal, as a modern local spelling and pronunciation without a "y" in Fray and without an accent in Cristóbal.

Annotated History: Otermín placed Fray Cristóbal 60 leagues from Santa Fé, 32 leagues from Robledo, which he gave as the beginning of the dry jornada, and seven from La Cruz de Anaya (Hackett and Shelby 1942:II, 202;II, 365;II.397). Vargas reached Fray Cristóbal traveling north on 30 August 1692. He noted that it was 32 leagues from San Diego and 65 from El Paso (Kessell and Hendricks 1992:371-373).

El *Paraje* de Fray Cristóbal marked the northern terminus of the Jornada del Muerto of New Mexico. On 27 May 1726 Rivera traveled northnorthwest eleven leagues, passing the Sierra de San Cristóbal, and stayed at a paraje called Fray Cristóbal, located on the bank of the Río Grande (Alessio Robles 1946:50).

On 11 August 1766, Lafora recounted camping there on the bank of the Río Grande five leagues north of the northern end of the Sierra de San Cristóbal (Alessio Robles 1939:93). On 22 November 1780 Anza left Valverde and traveled five leagues south to "Fray Cristoval" (Thomas 1932:199).

In 1895, Coues characterized this as an area more than a specific point (Coues 1895:II, 635-636). Josiah Gregg gave a short description of Fray Cristóbal in 1833 that defines the Spanish *paraje* from the Anglo-American point of view.

He wrote that it, "like many others on the route, is neither town nor village, but a simple isolated point on the river- bank - a mere *paraje*, or camping-ground" (Gregg 1933:258).

In August of 1846, Wislizenus understood this title to refer to the last camping place before entering the Jornada del Muerto heading south rather than a particular site. His caravan camped two miles from the Río Grande but he noted that others stayed nearer or further and that there were no buildings with which to identify the name (Wislizenus 1848:38).

In 1851, Reverend Read described a grove of timber where all travelers "halt to feed, rest and obtain a supply of wood and water before entering the Jornada" (Bloom 1942:135). When Davis passed through Fray Cristóbal in 1855, there was still no settlement of any kind (Davis 1938:208-209).

A town called *Paraje*, or Fra Cristobal, founded at about the same site in the late 1850s, survived into the first decades of the twentieth century. A twin town, Canta Recio, was settled directly across the river in the 1870s (Boyd 1986:86). Boyd places the town of Paraje eight miles down river from Fort Craig. During the Civil War, Colonel Edward Canby estimated it at seven miles (Boyd 1986:60, 70-71). Marshall and Walt note that the site of Paraje, designated LA 1124, is south of *Paraje* Well (Marshall and Walt 1984:293). The ruins of *Paraje* lie within the flood basin of Elephant Butte Reservoir. Although it has seldom been completely under water the reservoir contributed to erosion of the town. Boyd writes that during the twentieth century the Río Grande meandered eastward to erode the western portion of the town's ruins (Boyd 1986:110). According to John P. Wilson, the location of the earliest signs of settlement were found by a surveyor in 1857 at the line between Sections 31 and 6 in Townships 8 and 9 South, Range 2 West (Wilson 1985:32). A 1908 Bureau of Reclamation map in Boyd confirms that location (Boyd 1986:103).

The small area of the river occupied by *Paraje* and *Paraje* Well would have been the point where caravans left or reached the river before or after the crossing of the Jornada del Muerto.

The "Lava Gate" between lava flows to the northeast and the Fra Cristobal Range to the southwest funneled traffic to the river in that area (Marshall and Walt 1984:241).

A map from the Surveyor General's files of the Pedro Armendaris Grant shows the "old wattering place" (sic) where the "Wagon Road over the Jornada" met the "old bed of the Río Grande." It also has range lines and the town sites of Paraje and Canta Recio. It can be used to pinpoint the location where the Camino Real rejoined the river, the focal point of the paraje of Fray Cristóbal. However, testimony in that same file notes that there was evidence of several river beds, or meanders, at Fray Cristóbal, "showing that at different times it has had its channel all over the narrow valley which borders the present stream" (Pedro Armendaris Grant #33:108-109,182-183). The paraje also spread along and away from the river at that point.

Fort Craig

New Mexico NATIONAL REGISTER Era: 19th Century

This post's predecessor was Fort Conrad (1851-54), a motley group of adobe and cottonwood huts about 9 miles to the north, also on the west bank of the Río Grande. Troops occupied Fort Conrad while they built Fort Craig (1854-84). The mission of the forts, near the northern end of the Jornada del Muerto, was protecting westbound miners from Navajos and Apaches and guarding the Camino Real. The garrison, almost continuously occupied with defensive actions and patrols, took part in the Navajo and Apache conflicts of the 1850s and in the Apache wars (1861-86). Supported by troop remnants from abandoned posts in Arizona and New Mexico that had marshaled at the fort, it also fought in the nearby Battle of Valverde (February 1862), the first major battle of the Civil War in the Southwest. Fort Craig was deactivated in 1885.

The walls of 17 of Fort Craig's adobe buildings, in varying stages of disintegration, and the stone guardhouse are visible, as are earth

mounds representing Civil War fortifications. The military cemetery is still surrounded by a stone wall but the burials, including those who died at the Battle of Valverde, were moved to Santa Fe in 1876.

El Contadero (Mesa del Contadero, Mesa de Senecú, Mesilla de Guinea, Black Mesa)

Era: 18th and 19th Century

Significance: This landmark mesa boasted *parajes* to both the north and the south, both associated with the name Contadero. One, south of the mesa, has been identified with a Mexican and colonial period archeological site.

Annotated History: Between 26 and 27 May 1598, the Oñate expedition traveled nine leagues from the "Arroyo de los Muertos" or "Arroyo de las Parras" without their carts because it was impossible to proceed with them. On the 27th, they arrived at "Ciénega de Mesilla de Guinea," named this because the mesa was made of black rock (Pacheco, Cárdenas y Torres 1871:XVI.249). It was the same formation that shared the names El Contadero, Senecú, and Black Mesa. Hammond and Rey place the marsh on the east bank of the Río Grande, near San Marcial (Hammond and Rey 1953:I.317). That area was later called Valverde.

Otermín, in 1680, twice mentioned El Contadero without giving details about it (Hackett and Shelby 1942:II, 172,364). On another occasion, however, he described camping at the "place...which they call El Contadero, along the banks of the Río del Norte." The next morning they "crossed the Río del Norte, the pueblo of Senecú being on the other side" (Hackett and Shelby 1942:II, 203).

On 12 August 1766, one league north of Fray Cristóbal, Lafora entered a perilous defile through hills and ravines called "el Contadero." It extended north three leagues, as far as the mesa of Senecú. From the mesa the ruins of the pueblo of the same name could be seen across the river (Alessio Robles 1939:94).

In Miera y Pacheco's map ("Plano del Río Grande, 1773), two sites are featured: Contadero south of "Mesa de Senecú" and an unnamed *paraje* north of the mesa, perhaps Valverde (Adams and Chávez 1956:268;Marshall and Walt 1984:286).

The 1819 description of the Valverde Grant gave as the southern boundary "a peak or knoll located on the southern edge of the Mesilla del Contadero which is the boundary or terminus of the Valverde Valley and which is at the Fray Cristobal *Paraje*" (Bowden 1969:II.163). El Contadero was noted but not described by Gregg (Gregg 1933:258). Ferguson referred to the "high table-land on the east side of the river called 'Cantadero'(sic)" (Bieber 1936:334).

Gibson camped at Valverde, which he described as very close to a mesa. His description of the mesa as a volcanic table, flat except for one little elevation, with very steep sides, identifies it as Black Mesa. When his unit left Valverde it went six miles around the east of the mesa and to the camp of another unit on the south side. That camp was one half mile from water but had forage and wood. It was nine miles from Fray Cristóbal (Bieber 1935:293-294). An 1872 map of the Pedro Armendaris Grant shows a place labeled Contadero south of the mesa with the same name (Pedro Armendaris Grant #34:28). Marshall and Walt place the paraje south of the mesa. They also note a colonial and Mexican period archeological site, Corrales de Contadero (LA 31735, Río Abajo Site No. 72), that may be associated with the paraje (Marshall and Walt 1984:270,294).

Wilson uses the name Contadero for the pass, the mesa, and the point where the road once more reached the river. He also describes the trail as "the very narrow trail along the western and southern base, between the steep sides of the mesa and the waters of the river" (Wilson 1976:6-7). The term Contadero was used over the centuries to describe Black Mesa itself and its southward extension toward Fray Cristóbal, the defile leading through the southern extension to Black Mesa, and camps on both the south and north sides of the mesa. The latter was later known as Valverde.

Oñate named the "Mesilla de Guinea," a reference to its black color, and the marshes along the river beside it. Lafora referred to the mesa itself as the "mesa de Senecú," from which the ruins of the pueblo of the same name could be seen across the river. Miera y Pacheco used the same name for the mesa itself. By referring to "the southern edge of the Mesilla del Contadero" at "Fray Cristobal *Paraje*," the 1819 description of the Valverde Grant used that name to describe the entire formation of which Black Mesa is the northernmost part.

Lafora described Contadero as the narrow defile leading north to the mesa. The 1773 map of Miera y Pacheco depicted Contadero south of "Mesa de Senecú", as did the Armendaris Grant map. That may have been Gibson's 1846 campground on the south side of the mesa, six miles south of Valverde and nine miles from Fray Cristóbal. Marshall and Walt place the *paraje* south of the mesa and also note an archeological site called Corrales de Contadero in that vicinity.

Finally, the only Otermín mention of El Contadero in 1680 that can be located was across from the pueblo of Senecú, at or very near the place later known as Valverde. Miera y Pacheco's map showed an unnamed *paraje* immediately north of the Mesa de Senecú. These both conform to Gibson's 1846 description of a campground near the ruins of Valverde. It was in a grove of trees near the base of Black Mesa and bore traces of earlier campers.

For the purposes of this study, Marshall and Walt's Corrales de Contadero archeological site (LA 31735, Río Abajo Site No. 72) should be considered as the appropriate site for the *paraje* of Contadero. The name Valverde later included the flat on the east bank north of Black Mesa.

Valverde

Era: 17th, 18th, and 19th Century

Significance: This *paraje* was called Contadero during the seventeenth century and Valverde by the late eighteenth century.

Regardless of its name it was a natural *paraje* as well as the site of a nineteenth- century town and civil war battle.

Annotated History: Otermín described camping at a point that he called El Contadero. It was on the banks of the river across from the ruins of the pueblo of Senecú (Hackett and Shelby 1942:II.203). That description better fits later descriptions of Valverde and the location of the ruins of the hacienda and town of that name, than do later depictions of El Contadero showing it south of Black Mesa and away from the river. The 1773 map by Bernardo de Miera y Pacheco showed an unnamed *paraje* north of "Mesa de Senecú" which would have been Valverde (Adams and Chávez 1956:268; Marshall and Walt 1984:286).

On 20 November 1780 Anza left the spring of the Apaches, or the "Apache Wood," and traveled four leagues to Valverde, where he noted the tracks of many horses and people crossing the river. His party rested there the next day before going on five leagues to Fray Cristóbal (Thomas 1932:198). During the nineteenth century Valverde was often noted as the site of a good ford. The *paraje* of Valverde next appeared in 1805 in a report on vaccinations (Marshall and Walt 1984:286).

The 1819 description of the Valverde Grant noted that it began at the "Ancon de Valverde" on the east bank of the Río Grande, opposite the mouth of the Arroyo de San Pasqual (Bowden 1969:II, 163). There is now a bend in the river adjacent to the Valverde town site and across from the mouth of Tiffany Canyon. Tiffany Arroyo, a name whose origin is in the twentieth century, is across from and slightly south of the ruin of San Pasqual. In 1832, Valverde was described as the ruins of a hacienda on the outskirts of the settlements of New Mexico at the edge of the desert of the Jornada del Muerto (Carroll and Haggard 1942:78-80; Julyan 1996:353).

In 1839, Gregg observed the ruins of Valverde and wrote that it had been founded only 20 years earlier, in some of the richest land in New Mexico, and was deserted due to Indian attacks

(Gregg 1933:258). On 30 July 1846, Wislizenus wrote of passing the "ruins of Valverde," which he described as "the mud walls of a deserted Mexican village," in an area of sand hills and cottonwood trees within twelve miles to the south of Luis López's hacienda (Wislizenus 1848:37).

In 1846, Abert identified the river crossing at Valverde and recommended that southbound wagons be taken to the west bank of the Río Grande at Alburquerque and back to the east side at this ford. Abert mentioned and sketched the Mesa overlooking the ruins of Valverde and placed it 15 miles from Fray Cristóbal (Abert 1962:120,125-133). Gibson described his camp near the ruins of Valverde in 1846. It was in a grove of trees near the base of Black Mesa and bore traces of earlier campers. When his unit left Valverde it went six miles around the east side of the mesa to a camp on the south side (Bieber 1935:293-294). Depictions of the Civil War Battle of Valverde confirm that the entire battle took place in the shadow of the Mesa del Contadero (Alberts 1984:42; Hall 1960:84,97).

The *paraje* north of Mesa de Contadero variously called Contadero or Valverde probably spread along the riverbank and filled the space between the river and the edge of the hills. Accounts of the Battle of Valverde also include an old riverbed on the east side of the valley but still in its bottom (Alberts 1984:42,46; Hall 1960:84,97). Depending upon the age of that bed, or the possibility that the river bed has changed regularly over the last several centuries, it could be that the segment of the paraje which experienced the heaviest use is much closer to the hills than to the existing river bed.

Luis Lopez

Era: 19th Century

Significance: The seventeenth- century estancia that belonged to Luis López bequeathed its name to the region and it was attached to this Mexican era community. It was noted by nineteenth- century travelers who used the road on the west bank of the river.

Annotated History: The Mexican period community of Luis López first appears in a list of New Mexico settlements compiled by Manuel Armijo in 1840 (Carroll and Haggard 1942:93; Marshall and Walt 1984:278).

On 29 July 1846, Wislizenus mentioned a small town named Lopez; on his map he marked it L. Lopez. He commented that the mountains came closer to the river there and that this area contained the last settlements before the Jornada del Muerto (Wislizenus 1848:37).

In December 1846, George Rutledge Gibson and Doniphan's army camped at Luis López on the west bank of the Río Grande. They forced residents to sell them needed supplies (Bieber 1935:291).

Marshall and Walt place the Mexican era settlement of Luis Lopez (LA31748) just east of the present village of the same name (Marshall and Walt 1984:277-278).

Teypana, Teypama Piro Pueblo

New Mexico NATIONAL REGISTER

Era: 17th, 18th, and 19th Century

Teypana or Teypama Piro Pueblo is a prehistoric/ contact period pueblo. The Piro village name "Teypama" appears only in the records of the Oñate Expedition (Hammond and Rey 1953:318 and 346). We find in the June 1598 itinerary (No. 1) that the pueblo of "Teypana" was also called "Socorro." The name Socorro (aid, assistance, or relief) was applied to the village since the inhabitants had furnished the Oñate Colony with a supply of corn and, as Vetancurt described in 1698, "a la venida de los carros antes de la fundacion de Guadalupe se les llevaba socorro de pan, y otras cosas a los caminantes" (Vetancurt 1961: 266). (See Marsahl and Walt, p. 250).

Town of Socorro Plaza

Era: 17th, 18th, and 19th Century

Socorro has been steeped in New Mexico history since Don Juan de Oñate stopped off dur-

ing his entrada on June 14, 1598. The site was then occupied by Pilabo, the northernmost Piro Indian pueblo; the Oñate documents called it "Piloque." Oñate was in advance of the main body of colonists. The caravan, still struggling through the desert behind him, was in desperate need of provisions. Of the Piro Indians, Oñate said, they "gave us much corn." The pueblo was renamed Socorro (succor, help) to commemorate the gift.

While Oñate continued north, two priests remained behind to do missionary work among the Indians. Fray Alfonso was so successful that he became known as "The Apostle of Socorro." The two priests built a modest church, to be replaced by a larger structure between 1615 and 1626. Here Fray Zuñiga and Fray Antonio de Arteaga planted the first grapes to be raised in New Mexico.

In late 1681, after the Pueblo Revolt, Governor Don Antonio de Otermin returned to the north in a half- hearted attempt at reconquest. He reached Socorro in November and found the community abandoned and the church profaned. He burned what supplies and provisions were left to keep them from falling into the hands of rebel Indians. He was unsuccessful in negotiating peace. The Indians had "returned to idolatry" and were unwilling to accept the resumption of Spanish rule. On January 2, 1682, Otermin gave up his attempt to reassert Spanish rule and started back toward El Paso.

Ten years later, on August 21, 1692, Don Diego de Vargas set out from El Paso for the reconquest of New Mexico. His force consisted of sixty Spaniards and a hundred friendly Indians. Within four months de Vargas restored twenty-three pueblos to Spain's empire. By September, 1693, de Vargas was back in El Paso gathering an expedition for resettlement. He was not as lucky this time; his force met with resistance. The battle to occupy Santa Fe was short, but it took most of 1694 to subdue the remainder of the pueblos.

During the recolonization, the former residents of Socorro did not return. Except for travelers and caravans on the Camino Real, Socorro was deserted and dormant until 1816

when the Spanish Crown awarded land to twenty- one families by the Socorro Grant.

The settlers depended upon agriculture and raising cattle and sheep. They settled on the hillside and valley floor, irrigating their crops from mountain springs and the Río Grande. There were fields of wheat and corn, vineyards and orchards, and pastures. As protection from the Apaches, they built adobe houses facing a central courtyard.

During the second quarter of the nineteenth century, life in Socorro settled into a leisurely if not lazy agrarian pattern, punctuated by occasional Apache raids and the arrival of travelers on the old Camino Real, now usually called the Chihuahua Road by the Santa Fe traders. Socorro was the last stop before or the first stop after crossing the Jornada del Muerto, and the residents learned to profit from their position.

The 1850s brought changes. Fort Craig was built some twenty miles to the south, and Socorro became an "army town," a trading center and rendezvous for officers and men from the fort. After the Civil War erupted, freighting and storing supplies created a bustle that completely transformed the village.

Lemitar

Era: 19th Century

Significance: Lemitar was built on the west bank variant of the Camino Real in the nineteenth century.

Annotated History: Although Lemitar does not appear on any Mexican period lists of settlements it apparently came into existence in 1831. The present church, completed by 1835, had its first burial in its camposanto shortly afterwards. The plaza was located to the east of the church and the road probably ran through the plaza (Scurlock 1982:7; Marshall and Walt 1984:277).

In November 1846 James William Abert observed Lemitar across the river from his camp on the east bank. He included it on his map of the region (Abert 1962:119, frontispiece). George Rutledge Gibson, in Doniphan's army traveling

down the west bank in December 1846, camped at "Limitar" (Bieber 1935:290-291). The missionary Read dined with ex-governor Manuel Armijo in "Limita" in 1851. Read described a "thriving town of some 300 souls...in a most beautiful portion of the valley" (Bloom 1942:134-135). W.W.H. Davis crossed the Río Grande from east to west near "Limitar" in 1855. His party continued into Lemitar and lunched at the home of the late governor, Manuel Armijo (Davis 1938:202).

Sabino

Era: 19th century.

Significance: The name predates the building of this nineteenth- century town, near the ruins of the seventeenth- century pueblo of Alamillo.

Annotated History: In a 1782 description attributed to Fray Juan Agustín de Morfi, there is mention of a deserted rancho named "Savina" in this area (Thomas 1932:102). "Sabinal," between Belén and Socorro, was listed in reports of 1827, 1831, 1833, and 1840. It was variously recorded as a pueblo, alcaldía, and plaza (Carroll and Haggard 1942:47- 49,88,93; Bloom 1913:15)

Wislizenus, heading south, reported passing "through the town Sabino," on the east side of the river, on the morning of 26 July 1846 after camping at La Joya. He noted that large yucca as well as mesquite became more common there than they had been further north (Wislizenus 1848:36). Abert noted that the citizens of Sabino had been fighting with the Navajo in 1846 (Abert 1962:119).

The ruins of Sabino are shown on a 1906 USGS map, across the river from, and about 750 yards north of, Lemitar (Scurlock 1982:8). It has been identified as LA 8870 (Marshall and Walt 1984:306).

Alamillo pueblo

Era: 17th and 18th Century

Significance: The mission- pueblo ruins of Alamillo marked a nearby *paraje* long after the

pueblo was deserted. The most significant event that occurred at Alamillo took place when Governor Bernardo Lopez de Mendizabal, during his inspection of New Mexico, investigated the ninety- year- old Father Alonso de Peinado, the resident missionary, in 1659 and humiliated him before the Indian pueblo. Soon after, Lopez ordered that the Alamillo mission Indians be moved back to Sevilletta, their native land.

Annotated History: The Piro pueblos of El Hosso (or El Oso) and La Pedrosa were mentioned together in Hernan Gallegos's account of the Sánchez Chamuscado entrada of 1581. Both were located on the east bank of the Río Grande, evidently in the area of Alamillo, New Mexico (Mecham 1926:275; Hammond and Rey 1927:45). It is possible that they conform to Alamillo and Acomilla.

In 1692, Vetancurt wrote of the church dedicated to Santa Ana three leagues from Socorro. He mentioned that the people lived on fish gathered from the Río Grande. The pueblo was burned in 1680 (Vetancurt 1961:266).

In October 1681 it was reported that the Piro pueblos of Alamillo, Sevilleta, and Socorro had been deserted after the revolt (Hackett and Shelby 1942:II.168). On 30 November 1681, Otermín marched north from Socorro through La Vuelta de Socorro to the Pueblo of Alamillo. He described its setting as in a plain on the banks of the Río Grande. Otermín's company camped beside the pueblo and then went on to Sevilleta. Returning south in January 1682, Otermín reported that he went from Sevilleta through Las Vueltas de Acomilla, over the "hill of Acomilla" and down into the pueblo of Alamillo. They stayed there two days to wait out inclement weather and then continued south (Hackett and Shelby 1942:II,206,II, 363).

Vargas stopped at the abandoned pueblo of Alamillo on 3 September 1692 after a march of five leagues from Socorro. The road was bad enough that he had trouble with his wagons. It was six or seven leagues to the abandoned hacienda of Felipe Romero, north of Sevilleta, the next day (Kessell and Hendricks 1992:374).

On 29 May 1726, Rivera traveled north twelve leagues from San Pasqual, through the hills of Acomilla, to Alamillo. He saw several ruins on the east side of the river, where there had been haciendas de labor before the revolt. He found the pueblo of El Alamillo, located on the east side of the river, and stayed in an uninhabited place near it (Alessio Robles 1946:50).

On 17 May 1760, after seeing the remains of Socorro, Bishop Tamarón stopped at the site of "Alamito" (Adams 1953:201). Lafora saw ruins when he camped nearby on 13 August 1766. He located it four leagues to the south of the ruins of the pueblo of Sevilleta by a rough road (Alessio Robles 1939:95). On 17 November 1780 Anza left the Vueltas de Romero and traveled five leagues south to the region of Alamillo (Thomas 1932:198). The Vueltas de Romero are featured in Bernardo de Miera y Pacheco's map of 1779.

Despite the long-lived notoriety of Alamillo its location is now a mystery. Marshall and Walt write that they are certain that it was south of Alamillo Arroyo and north of Pueblito and speculate that it was probably very near the later town of Sabino. They conclude that its proximity to the river may have caused traces of it to be destroyed by floods (Marshall and Walt 1984:255).

La Joya de Sevilleta

New Mexico Era: 17th, 18th, and 19th century

Significance: The modern town of La Joya was founded as a frontier outpost for protection of the Camino Real adjacent to the site of a seventeenth- century Piro pueblo. The village of La Joya de Sevilleta marks the lower end of Río Abajo. For a time it was where caravans would gather and await the rest of the caravan and/or presidial troops who would escort them down the trail. The church and possibly the plaza, along with some ruins of structures, remain of this important village.

Annotated History: In his account of the Sánchez Chamuscado entrada, Gallegos named

the two northernmost Piro pueblos in New Mexico Ponsitlan and Pueblo Nuevo. The latter was still being built at that time. They were both on the east side of the Río Grande and one may have been Sevilleta, later the northern border of the Piro nation (Mecham 1926:275;Hammond and Rey 1927:46).

On 15 June 1598 the Oñate expedition traveled seven leagues from Socorro to the little pueblo which they named Nueva Sevilla. They thought it necessary to take refuge in the houses of the pueblo in case the Indians of the area decided to attack and made this the first pueblo in which they camped. They stayed there until 21 June. Between 15 June and 22 June 1598 the Maese de Campo, Juan de Zaldivar, and Sargeanto Mayor, Vicente de Zaldivar, visited "the pueblos of Abo" (Pacheco, Cárdenas y Torres 1871:XVI, 251-252). Nueva Sevilla also came to be known as Sevilleta, so named because of its resemblance to Seville, Spain. It was located on the east bank of the Río Grande, about 20 miles north of Socorro (Hammond and Rey:1953:I, 318). Vetancurt wrote that it received its name due to its large Piro population. In 1692, Vetancurt said that this pueblo was five leagues from Alamillo. Sevilleta had been razed before that time (Vetancurt 1961:266).

In 1634, Fray Benavides reported that the Piro pueblo of Sevilleta boasted a convent and Indians who lived Christian lives. He wrote that when he arrived in New Mexico at the beginning of 1626, Sevilleta was burned and in ruins due to warfare with other Indians, likely the Apache. During the tenure of Benavides as Custodian of New Mexico, the pueblo was rebuilt and resettled and the convent erected and dedicated to San Luis Obispo. Benavides also used the name "Seelocú," evidently the Piro name for Sevilleta (Hodge, Hammond, and Rey 1945:63- 64,252- 253). Governor Juan Manso de Contreras moved the inhabitants of Sevilleta to the pueblo of Alamillo during the 1650s. The next governor, Bernardo López de Mendizábal, returned them in 1659 despite protests by the Franciscans in the area (Primera Audiencia de don Bernardo López de Mendizábal, 1663; Scholes 1942:29).

When Maestro de Campo Alonso García retreated down the river in August 1680 the natives of Sevilleta went south with him. It was later reported that Sevilleta was left deserted along with the other Piro pueblos of Alamillo and Socorro (Hackett and Shelby 1942:I, 70,II, 168). Otermín passed Sevilleta in January 1682 as he retreated to the south after his brief return to New Mexico (Hackett and Shelby 1942:II, 363). Vargas left the abandoned pueblo of Alamillo on 3 September 1692 and went north to the abandoned pueblo of Sevilleta. He continued on to the estancia that had belonged to Felipe Romero to find pasture for his mounts, a distance of six or seven leagues from Alamillo (Kessell and Hendricks 1992:375).

On 30 May 1726, Rivera left El Alamillo and traveled north- northeast through flat land dotted with hills, ravines and thickets and came to the ruins of a pueblo called Sevilleta, located on the east side of the river (Alessio Robles 1946:50-51). On 18 May 1760, after stopping at "Alamito," Bishop Tamarón came to the site where the pueblo of Sevilleta stood, and a little beyond it the ruined estancia of Felipe Romero. Tamarón wrote that both were "lost with the kingdom" (Adams 1953:201). Lafora viewed the ruins of Sevilleta when he passed through on 14 August 1766. He placed it across from the mouth of the Río Puerco in an area of steep hills (Alessio Robles 1939:95).

After the visit of Lafora, the area was resettled as the town of La Joya. In the 1790s landless families from Taos, Las Vegas, and Mora who had experience fighting Indians were moved there to provide protection for caravans to and from Mexico. An 1819 land grant to 67 individuals confirmed their defensive responsibilities (Taylor and Diaboli 1937:20).

On 10 March 1807, Zebulon Montgomary Pike described "Sibilleta" as "the neatest most regular village I have yet seen." It was a square, with a mud wall facing the outside and the windows and doors pointing inward toward the plaza. He thought the population to be 1000. This was the last village Pike stayed in before entering "the wilderness" on his trip to Mexico as a Spanish prisoner and he noted that caravans gathered

there before heading south (Coues 1895:II, 628-632). In 1812, Pedro Bautista Pino explained that the hazards of the journey to Chihuahua made it necessary for travelers to gather at "Joya de Sevilleta" in sufficient numbers to ensure their safety during the trip south. He also noted it as "Sevilleta," a frontier post in which seven soldiers were stationed (Carroll and Haggard 1942:106,69).

Wislizenus simply called it "Joya, another small town" when he went through on 25 July 1846. His map shows the road continuing straight south as the river curved to the west (Wislizenus 1848:36). In September 1851, Baptist missionary Hiram Read arrived at "La Jolla, (La Hoyah - The Hole)," and found that he had to stay with "a Mexican, there being no American in town" (Bloom 1942:134). In 1855, Davis described "La Hoya" as a town of 400 a few hundred yards from the east bank of the Río Grande (Davis 1938:201).

The modern town of La Joya is apparently just below the ruins of Sevilleta (Marshall and Walt 1984:247).

Las Nutrias

Era: 17th, 18th, and 19th century

Significance: The name Las Nutrias appears in the seventeenth century. It was later the center of an attempt to found a land grant community and remains attached to a modern community.

Annotated History: In 1680, Maestro de Campo Alonso García, commander of the Río Abajo, met Governor Antonio de Otermín and the refugees from Santa Fé at Las Nutrias (Hackett and Shelby 1942:I, 104,II, 168,172,174-175). When Otermín led his party and many Indian refugees south from Isleta toward El Paso on the east side of the Río Grande early in 1682, he recorded his route past "La Vega de las Nutrias" among other places (Hackett and Shelby 1942:II, 362; Hackett 1915:391).

On 30 May 1726 Rivera traveled north then northeast from Sevilleta through flat land dot-

ted with hills, glades and thickets. He passed some arroyos without water after the ruins of Sevilleta and stayed at a *paraje* on the bank of the Río Grande called Las Nutrias. He estimated that he went eight leagues from El Alamillo to Las Nutrias (Alessio Robles 1946:50-51). When Lafora was there on 14 August 1766, he described it as a recently formed town of 30 families, four leagues from Sevilleta and eight from Alamillo. He passed the ruins of "las casas de Felipe Romero" about halfway from Sevilleta to Las Nutrias (Alessio Robles 1939:95-96).

A petition for settling San Gabriel de las Nutrias grant was filed in early 1764. After several attempts to settle the area and gain official approval the grant was revoked in 1771, but the settlement survived (Ebright 1996:203-208; Bowden 1969:II, 207-208). It appears regularly on maps from the late eighteenth century (Wheat 1959:I, plates 176,185,195,272). On 15 November 1780 Anza left the area near Belen and traveled five leagues south to Las Nutrias (Thomas 1932:198).

Casa Colorado

Era: 18th, and 19th century

Significance: Casa Colorado may have been a seventeenth- century landmark. It began its existence as a community early in the nineteenth century.

Annotated History: On 19 May 1760, after coming to Sevilleta, Bishop Tamarón passed the ruins of "the house they called Colorada," and from that point on they began to see pens of ewes, corrals, and small houses (Adams 1953:201). Given that this is the only colonial era mention of this place and that at the time it was already in ruins, perhaps a pre-revolt estancia which was located there gave its name to the area.

The modern settlement of Casa Colorado was born of a petition for a community grant in 1823. The grant may not have been confirmed at that time but the town continued in existence (Bowden 1969:II, 205). Testimony in the adjudication of the grant before the Surveyor General

confirmed that the town was built in 1822 or 1823 in the place already known by the name Casa Colorado (Town of Casa Colorado Grant:12). It was included in lists of New Mexico towns in 1833 and 1840 (Bloom 1913:14; Carroll and Haggard 1942:93).

Wislizenus only referred to the nearby sand hills and the location of "Casas Coloradas," six miles south of Tomé, when he camped there on 22 July 1846 (Wislizenus 1848:35). Later in the same year Abert commented on some large ponds north of town which were filled with water birds. His party had reached the Río Grande near there after descending from Abó Pass (Abert 1962:117-118).

In 1855, W.W.H. Davis observed that at Casa Colorado his party "struck a young desert, an excellent pocket edition of the great African Zahara, over which we journeyed for about four miles." Through the area north of "La Hoya" the sand made travel difficult and the land barren with the exception of "occasional small patches in some of the valleys close to the river" (Davis 1938:200).

In the 1920s the local Post Office was given the name "Turn" because there was a turn in the road at Casa Colorado and that name has since appeared on many maps but the original name is still in general use (Julyan 1996:67).

Las Barrancas

Era: 17th Century

Significance: Las Barrancas was an estancia before the revolt of 1680 whose name all but disappeared by 1900.

Annotated History: This was an estancia located between Sevilleta and Isleta on the east side of the Río Grande where Otermín camped the night of 5 December 1681 before attacking Isleta on the sixth (Hackett 1915:383). It was reported to be 23 leagues north of Senecú and 10 leagues south of Isleta (Hackett and Shelby 1942:II, 213).

Vargas went slightly more than three leagues north from the hacienda of Felipe Romero to Las Barrancas, the hacienda of Francisco Gómez, on 5 September 1692. It was about five leagues south of the hacienda of Tomé Domínguez (Kessell and Hendricks 1992:375).

The place name "la Barrancas" appears in the 1778 map drawn by Edward Ruggles, Jr., a Connecticut map- maker, from information on other existing maps (Wheat 1959:I, 149, plate 214).

The State of New Mexico placed a marker commemorating Las Barrancas alongside New Mexico Highway 47 just south of the A.T.&S.F. railroad tracks.

Jarales

Era: 19th Century

Significance: Jarales and Sabinal were ranchos outside Belén in the eighteenth century through which the west bank variant of the Camino Real ran.

Annotated History: According to Adams and Chávez, Domínguez was referring to Jarales when he described ranchos of genízaros living near Belén in 1776 (Adams and Chávez 1956:208). Chávez names Los Jarales as one of the main genízaro settlements of New Mexico in the late eighteenth century (Chávez 1979:199).

The name "Plaza de los Jarales" appears in an 1802 census, but not that of 1750 (Olmsted 1981:138-139). Among official listings of the early nineteenth century it is only found in 1822 (Bloom 1913:15; Carroll and Haggard 1942:47-48).

Zebulon Pike reported passing "Xaxales" on 10 March 1807, on the east side of the Río Grande between Tomé and Sevilleta, south of Sabinez or Sabinal. He recorded a population of 300. In 1895, Coues guessed that the name was probably a poor rendering of Jarales, a town in that area, but not in the same location (Coues 1895:II, 628-629).

Sabinal

Era: 19th Century

Significance: Sabinal, like Jarales, was founded outside Belén in the eighteenth century. The west bank variant of the Camino Real ran through the town.

Annotated History: In his reminiscences, recorded in 1777, Juan Candelaria described the founding of many towns after the Spanish reconquest of New Mexico in the 1690s. He thought that Sabinal was founded in 1741 and associated it with Belén (Armijo 1929:280-281).

Sabinal is listed on official registers of towns for 1820s (Bloom 1913:15; Carroll and Haggard 1942:47-48). It does not appear in some of the early censuses of the nineteenth century, but a complete census exists for 1827 (Olmsted 1981:250-260).

Zebulon Pike reported passing "Sabinez" on 10 March 1807, on the west side of the Río Grande between Tomé and Sevilleta (Coues 1895:II, 628-629).

George Rutledge Gibson wrote in his journal that he went through "San Sabinal" with Doniphan's army in December 1846. Doniphan's army passed was following the west bank of the Río Grande from Alburquerque to Valverde (Bieber 1935:290).

Belén (Bethlem)

Era: 18th and 19th Century

Significance: Belén was constructed on the west bank of the Río Grande. Colonial travelers saw it from their camps across the river while later users of the west bank road stopped within the town.

Annotated History: In his 1777 reminiscences, Juan Candelaria recalled that "Nuestra Señora de Belen" was founded in 1741 with the help of genízaro Indians (Armijo 1929:280-281).

On 19 May 1760 the houses of the settlement of Belén on the other side of the Río Grande came into Bishop Tamarón's view, and from there on the countryside was covered by great poplar groves. Tamarón was received by the alcalde of Tomé with the citizens of his town, of Belén and of Isleta (Adams 1953:201). On 14 August 1766 Lafora commented that this settlement of 38 genízaro and Spanish families lay across the Río Grande from Tomé in a well-cultivated and pastured area (Alessio Robles 1939:96). On 14 November 1780, Juan Bautista de Anza left the pueblo near Valencia and traveled six leagues south, stopping for the night opposite the pueblo of Belen. It was five leagues further south to Las Nutrias (Thomas 1932:198).

In December 1846, George Rutledge Gibson and Doniphan's army passed through Belen while following the west bank of the Río Grande from Alburquerque to Valverde (Bieber 1935:284-287).

Given that most colonial traffic passed along the east bank of the Río Grande, the most used caravan paraje would have been opposite the town of Belén.

Los Cháves

Era: 19th Century

Significance: Los Chávez was founded as a farming community and was a stop for caravans that used the west bank to travel along the Río Grande.

Annotated History: The settlement of Los Chávez, on the west bank of the Río Grande, dates to a 1738 grant to Nicolás Durán y Chávez from Atrisco. In 1790 it consisted of six plazas (Julyan 1996:78;Espinosa and Chávez 1967:41-43). It was included in the 1802 census (Olmsted 1981:139-140).

In the autumn of 1847 a unit of the U.S. Army traveled south along the west bank of the Río Grande. Philip Gooch Ferguson reported that "the road most generally traveled" was on the east bank but the west side of the river was better for water. Ferguson mentioned camping near a small town named "Plaza Chavez" (Bieber 1936:326-328).

Tomé Hill, Cerro Tomé

NATIONAL REGISTER

Era: 17th, 18th, and 19th Century

Significance: Tomé Hill, a natural landmark, served all travelers from prehistoric times into the historic period. A seventeenth- century road ran to the east of the hill. After the river changed its course in the early eighteenth century and the town was founded, the main road shifted to go along the valley and by the plaza.

Annotated History: When Otermín led his party and many Indian refugees south from Isleta toward El Paso on the east side of the Río Grande early in 1682, he noted passing "Serillo de Tome" (Hackett 1915:391). On 6 September 1692 Vargas noted that the road in the neighborhood of the hacienda that had belonged to Tomé Domínguez was so sandy that cargo had to be transferred from wagons to pack animals (Kessell and Hendricks 1992:375). Such a description fits the area around Tomé Hill more than it does the floor of the valley as it is at present.

According to Scurlock, Gerow, and Kammer, from the time of Oñate through that of Vargas the course of the Río Grande was further east, close to the western base of Tomé Hill. The "Río Grande Pueblo Indian Trail," which became the Camino Real, ran along the along the eastern bank of the river. It went on the east side of the hill, "following the edge of the rincon sandhills just to the east of present La Entrada Road." Later, that track would be the "upper branch of the Camino Real." The river shifted west before 1739, when the Tomé grant was settled. An "inner valley branch" of the Camino Real then ran through the plaza of Tomé, connecting it to other settlements in the Río Grande valley (Scurlock, Gerow, and Kammer 1995:73,98-106). The river reportedly shifted eastward a short distance in 1769, flooding some of the houses and lands of Tomé (Adams and Chávez 1956:8).

Juan Candelaria dated the village of Tomé to October 1740 and added that the settlers immediately began construction of a church (Armijo 1929:278-279). In 1744, Fray Juan Miguel Menchero identified the petitioners as

genízaros (Hackett 1937:401-402). Other sources say that some genízaros joined Spanish families from the Alburquerque area in a request for lands in 1739 that included Tomé hill and the site of the former estancia of Tomé Domínguez de Mendoza, then on the east side of the river. Soon a plaza and church were begun just over a mile southeast of the hill, probably on the site of a former pueblo (see Scurlock, Gerow, and Kammer 1995:75).

On 19 May 1760 Bishop Tamarón was received by the alcalde of Tomé with the citizens of this town, of Belén and of Isleta. Tomé was a new settlement of Spanish citizens that, according to Tamarón, had the potential of becoming the best in the kingdom because of its extensive lands and the ease of running an irrigation ditch from the river. He wrote that they were already building a church, which was 33 varas long by 8 wide with a transept and three altars, that was dedicated to the Immaculate Conception. Bishop Tamarón confirmed 402 persons that afternoon. He did not record the population of this settlement until later because it was included in the census of the town of Alburguerque, to which it was subordinate (Adams 1953:201).

Lafora passed by Tomé on 14 August 1766 and wrote that it was also called "pueblo de la Limpia Concepción" and "Fuenclara." He located it six leagues north of Las Nutrias on good, flat road and across the Río Grande from Belén. It contained a population of 70 Spanish vecinos and their families. The entire region was well-cultivated and small livestock grazed on ample pasture (Alessio Robles 1939:96).

Pike stayed near what he called "St. Thomas" on 9 March 1807. He reported that the population was 500 and that the camp was constructed to be able to withstand an attack (Coues 1895:II.628). Wislizenus noted the fine irrigated fields of Tomé, which, he wrote, was stretched along the road. He passed by on 21 July 1846 and camped nearby (Wislizenus 1848:35). Tomé was one of the main genízaro settlements of New Mexico in the middle of the eighteenth century (Chávez 1979:199).

Because of the shift in the bed of the Río Grande, there were two separate roads through

the Tomé area. The earlier road ran directly east of Tomé Hill while the later went through the present plaza.

Los Lunas

Era: 19th Century

Significance: Los Lunas/Los Lentes was the site of a pueblo and of early land grants. It became a political and economic center under the tutelage of the powerful Luna family.

Annotated History: One of the first Tiwa pueblos found by the Sánchez Chamuscado party in 1581 as they traveled north along the Río Grande through New Mexico was Piquinaguatengo on the west bank of the river. It has been identified with the pueblo of San Clemente, or Los Lentes, now within the boundaries of Los Lunas, New Mexico (Mecham 1926:276; Hammond and Rey 1927:46; Julyan 1996:209).

The roots of the town of Los Lunas are in the San Clemente grant of 1716, which came to be owned by the Luna family in the middle of the eighteenth century. Los Lunas also came to include Los Lentes, immediately to the north, originally a Tiwa pueblo (Espinosa and Chávez 1967:53; Julyan 1996:209). Only Los Lentes was included in the 1802 census (Olmsted 1981:140-142). "Lentes y Lomas" was listed in 1833 (Bloom 1913:15). The names of both Los Lentes and Los Lunas appear among the settlements listed by Manuel Armijo in 1840 (Carroll and Haggard 1942:93).

George Rutledge Gibson, in Doniphan's army in December 1846, camped at Los Lunas while following the west bank of the Río Grande from Albuquerque to Valverde (Bieber 1935:284-287). In the autumn of 1847 Philip Gooch Ferguson, with a U.S. Army unit traveling south along the west bank of the Río Grande rather than the more usually traveled east bank, wrote of camping near the town of Los Lunas (Bieber 1936:326-327).

Valencia

Era: 17th, 18th, 19th Century

Significance: The site of Sangre de Cristo Church in Valencia also boasted a pre-colonial pueblo and a seventeenth-century estancia. Before 1800, two plazas were established, one at the old pueblo and estancia site and the other to the south.

Annotated History: Francisco de Valencia received an encomienda at the later site of the hacienda on the east side of the Río Grande early in the seventeenth century. It included the pueblo of Los Lentes on the west side of the river. During the 1630s he built an estancia at or very near the site of an already abandoned Southern Tiwa pueblo. The estancia was burned in the 1680 revolt. The pueblo at which Valencia built his estancia was probably that called Caxtole by the Sánchez Chamuscado party in 1581 (Brown and Vierra 1997:41- 42; Vivian 1932:42; Mecham 1926:276; Hammond and Rey 1927:46).

On 7 September 1692 Vargas stopped at the "outpost and ruined estancia of Juan de Valencia" (Kessell and Hendricks 1992:376). On 31 May 1726 Rivera left Las Nutrias and traveled eight leagues through flat land, seeing meadows and poplars on both sides of the Río Grande. He found many ruins of haciendas de labor and livestock estancias. He stayed at an abandoned estancia called Valencia (Alessio Robles 1946:51).

Candelaria gave the date of the resettlement of Valencia as 1751 (Armijo 1929:278-279). Other sources place it in the 1740s when a group of genízaros settled the Valencia area and two plazas were established by 1790. One was near the site of the former pueblo and estancia, and the present Valencia "Y"; the other was near the modern intersection of New Mexico Highway 47 and North El Cerro Loop (Taylor 1989:11). Valencia has been named as one of the main genízaro settlements of New Mexico in the middle of the eighteenth century (Chávez 1979:199). A church, called both Valencia and Sangre de Cristo, was begun around 1800 (Taylor 1989:39). It has been described as being 35 yards west of the Camino Real (Brown and

Vierra 1997:45). The settlement was called "La Sangre de Cristo, Puesto de Valencia" in the census of 1802 (Olmsted 1981:135).

On 13 November 1780 Anza left the Ranch of Juan Sanches and traveled five leagues south to the pueblo of Valencia (Thomas 1932:198). Wislizenus noted the rich soil when passing through this area of New Mexico between Peralta and Tomé on 21 July 1846 (Wislizenus 1848:35).

The site of the Tiwa pueblo and the Valencia estancia, on the west side of N.M. Highway 47 at the present Sangre de Cristo church, was given the designation LA 953. The southern plaza, at N.M. Highway 47 and North Cerro Loop is LA 67321 (Brown and Vierra 1997:2).

Peralta

Era: 19th Century

Significance: Peralta was a thriving nineteenth- century community that grew up around the estancias of the Otero family.

Annotated History: The Tiwa pueblo identified by the Sánchez Chamuscado party as Mexicalcingo in 1581 was at or near Peralta (Vivian 1932:43). The town of Peralta grew up around the holdings of the Otero family, who lived there at least as early as the late 1830s. The original hacienda has been placed in the site now occupied by the Church of Our Lady of Guadalupe. Taylor wrote that the *sacristia* (probably meaning chapel) of the Juan Antonio Otero hacienda and early plaza of Peralta was at the north end of the Otero hacienda, on the south side of the plaza, and directly south of the church (Chávez 1992:251-252; Taylor 1989:13-14,17,40-41).

Wislizenus referred to this settlement as both Peralta and as "Ontero's hacienda" when he passed it on 21 July 1846. He commented on the adobe walls that surrounded its livestock and irrigated (Wislizenus 1848:35). John M. Taylor clarified the note by Wislizenus, adding that the description was of the hacienda of Juan Antonio Otero (Taylor 1989:13).

Bosque, or Alamos, de Pinos (Bosque Farms) Era: 19th century

Significance: One of the most luxurious estancias in nineteenth century New Mexico was the actual site of the Civil War Battle of Peralta (1862).

Annotated History: Bosque de los Pinos was created in 1769 when floods caused the Río Grande to change course approximately two miles to the west, cutting off pieces of the Sedillo and Gutiérrez grants. The tract eventually came into the hands of Francisco Xavier Chávez, who built a hacienda on the property that was occupied by his son, José Mariano, in the late 1830s. After the death of José Mariano Chávez, his widow married trader Henry Connelly, a territorial governor during the Civil War (Taylor 1989:19- 21). Taylor located the hacienda on the east side of New Mexico Highway 47 between Abo and Pine Streets in modern Bosque Farms (Taylor 1989:19- 21).

The caravan bringing Wislizenus stopped at "Bosque, or Alamos, de Pinos," five miles south of Isleta pueblo, New Mexico, and a mile east of the Río Grande after crossing some difficult sand hills on 21 July 1846. Wislizenus also described the hacienda of Mariano Chávez's widow, two miles south of Bosque de los Pinos and one mile north of Peralta. He called it the largest which he had seen in that region. Its large fields and pastures were walled and irrigated and its quarters reminded him of plantations in the southern United States (Wislizenus 1848:35). For the distance estimates of Wislizenus to make sense, even as somewhat long, his Bosque de Pinos had to have been northwest of North Bosque Loop. His route from Isleta stayed away from the river in the sand hills, perhaps going near Chical, and then turning to the camp one mile from the river and still two miles, more or less, from the Chávez home.

In October 1846, Susan Shelby Magoffin camped in a grove of cottonwoods belonging to the Chávez family after leaving a pueblo that could only have been Isleta. The next morning she went on to visit the "widow of Don Mariano"

Chaviz." Magoffin described the luxurious Chávez home in some detail (Drumm 1926:202). In 1855, W.W.H. Davis wrote that "about a mile below Doctor Connelly's we passed what is known as the bosque, a large tract of fine timber, mostly cottonwood, something very rare in New Mexico" (Davis 1938:197). Given that Davis placed the bosque south of Los Pinos while Wislizenus and Magoffin had it to the north of the hacienda it may be assumed that the entire area was known for its forest.

The minor, but locally famous, Civil War Battle of Peralta took place there on 15 April 1862 when Union forces besieged a Confederate unit in the Chávez/Connelly hacienda. A small skirmish also occurred away from the hacienda, between West Bosque Loop and the river, when a Confederate relief column was turned back as they attempted to cross the river (Alberts 1983:369-374).

After the Battle of Peralta the United States used Los Pinos as a supply depot and a military post. Maps and photographs of Los Pinos show the road between Albuquerque and Peralta running through the middle of the post of Los Pinos (Miller 1987:2,18). Evidently, then, the modern highway generally follows the colonial road and the bulk of the estancia was located to its east.

El Pueblo de Isleta

Era: 17th, 18th, and 19th Century

Significance: Isleta still occupies the same site as it did when the Spaniards first visited in 1540 though the river has changed its course since that time. The open area against the hills directly across the river was a popular *paraje*.

Annotated History: Isleta may have been the Tiwa pueblo that was called Taxumulco (or Taxomulco) by Sánchez Chamuscado in 1581. It was located directly across the Río Grande from a pueblo called Tomatlan (Mecham 1926:276; Hammond and Rey 1927:46; Vivian 1932:43). It was at Isleta that Gaspar Castaño de Sosa, in 1592, was told of the arrival of the Juan de Morlete party that came to arrest him for his

illegal entrada (Hull 1916:330; Schroeder and Matson 1965:167-173; Pacheco, Cárdenas y Torres 1871:IV, 352).

In his 1634 memorial, former Custodian of New Mexico Fray Benavides reported that a convent was located at "San Antonio de la Isleta" of the "Tioas" (Tiwas) nation. This first priest quarters was erected around 1613 and was considered to be unusually fine (Hodge, Hammond, and Rey 1945:64-65, 253-258). The large church and convent were dedicated to San Antonio de Padua (Vetancurt 1961:267). Isleta's native name was reported to be Shi-e-hwib'-bak (Lummis 1894:4). The Spanish called it "Isleta" because the Río Grande split north of it and rejoined south of it surrounding the pueblo during floodtime.

Isleta did not participate in the 1680 revolt. During his attempt at reconquest, Otermín captured Isleta on 6 December, 1682. It was on the west bank of the Río Grande and the first pueblo found to be inhabited as Otermín entered New Mexico from the south. Otermín took at least 385 Isletans south to the region of El Paso, where Isleta del Sur was established (Hackett 1915:383-384; Hodge, Hammond, and Rey 1945:64-65,253-258). Vetancurt put the number of Isletans taken south by Otermín at 519. He also noted that the road to Acoma, Zuñi and Moqui (Hopi) left the river at Isleta (Vetancurt 1961:267). Scattered Tiwas were settled on the site of the old pueblo after the reconquest and the church was rebuilt in 1709 (Hodge, Hammond, and Rey 1945:64-65,253-258).

On I June 1726 Rivera left Valencia and traveled north- northeast following the river. After five leagues he saw the pueblo of Isleta, inhabited by a small number of Tiwa families, on the west side of the river (Alessio Robles 1946:51). Fray Juan Miguel de Menchero reported that 80 families lived there in 1744. He also observed that some Hopis had been brought to Isleta for the purpose of converting them (Hackett 1937:405-406). On 19 May 1760 Bishop Tamarón was received by the alcalde of Tomé with the citizens of this town, of Belén and of Isleta (Adams 1953:201). Lafora passed through

the neighborhood of this Tiwa pueblo, following north along the Río Grande, on 16 August 1766. It was ministered by a Franciscan priest. He reported that it lay along the road on the other (west) side of the river in a large alameda (cottonwood grove) which covered both banks of the river (Alessio Robles 1939:52).

Wislizenus camped below some sand hills across the Río Grande from the pueblo of Isleta on 19 July 1846. He commented on the church, orchards, fields, and cottonwood trees. His party ate apples from the pueblo that night. To the south, the sand hills became more difficult to cross (Wislizenus 1848:35). George Rutledge Gibson, in Doniphan's army in December 1846, passed through Isleta while following the west bank of the Río Grande from Alburquerque to Valverde. Gibson wrote that they traveled along the river bottom from Alburquerque to Isleta, not mentioning any other locations in the interim (Bieber 1935:284-287). It must have been Isleta that Philip Gooch Ferguson called "San Durasnos" in 1848. His army unit crossed from the east to the west bank of the Río Grande near Isleta and continued south down the less used road on the west side (Bieber 1936:326-327).

According to a sketch map by Ted Jojola of Isleta Pueblo, when the Spanish arrived in New Mexico, the riverbed in the Isleta area was different than it is today. It deviated to the west about a mile above the pueblo, then crossed the modern bed a little below the pueblo and ran to the east until about Los Lunas. If both beds shown in the map were running full it would make of the pueblo site an island and explain the name bestowed by the Spanish. Given that early chroniclers consistently describe Isleta as being on the west bank, the northern segment must have changed to its modern alignment early in the colonial period. The rest of the bed changed course approximately two miles to the west in 1769 and the area between the old and new channels came to be known as Bosque de los Pinos. In later floods the original bed filled and the land between them also flooded up to five feet deep (Taylor 1989:5,10,19).

Los Padillas

Era: 19th Century

Significance: The history of Spanish settlement at Los Padillas extends back to the seventeenth century. Its use as a paraje was increased in the nineteenth century when more travelers began using the road along the west bank of the Río Grande.

Annotated History: Juan Candelaria recalled Los Padillas being settled in 1710 (Armijo 1929:280-281). It appeared in the 1802 census (Olmsted 1981:142-143).

Wislizenus mentioned this as a hacienda south of Alburquerque on 19 July 1846. He was on the east side of the Río Grande, and noted that the more verdant west bank contained many ranchos and haciendas, among them one called Padillas (Wislizenus 1848:35). On 22 November 1846 the army unit which included Marcellus Ball Edwards came in from a campaign against the Navajo and reached Los Padillas, where they stayed at the house of José Chávez (Bieber 1936:211).

Given that the Chávez family resided at Los Padillas, this was probably the "Chávez or Padillas" listed in an 1822 register of New Mexico settlements (Bloom 1913:14).

Pajarito

Era: 19th Century

Significance: Pajarito appears in documents from the seventeenth century. The earliest known reference is 1643 when the resident priest at Isleta acquired Pajarito as a small ranch. The origins of Pajarito are, indeed, nebulous. The land, about a league north of Isleta, was used for raising crops and herding. By the eighteenth century, the area would bear the name Puesto de San Isidro de Pajarito. In the nineteenth century more travelers began using the road along the west bank of the Río Grande which brought more visitors to the Atrisco Valley and Pajarito.

Annotated History: A violent dispute over land between the Pueblo of Isleta and the near-

by estancia of "Paxarito" was discussed during the 1663 trial of Governor López Mendizábal of New Mexico before the Inquisition in Mexico City (Primera Audiencia de don Bernardo López de Mendizábal, 1663). Juan Candelaria thought that Pajarito was resettled by Juan Fernandez in 1711 (Armijo 1929:279-280). It was listed in the 1802 census (Olmsted 1981:143). Although this area has also been known by other names, in the 1894 hearings on the Atrisco Land Grant before the United States Court of Private Land Claims, the northern boundary of Pajarito was given as the southern boundary of the Atrisco grant (Sánchez 1998:81-82). In 1659 for example, a reference was made to a shortlived Spanish cattle ranch near Isleta Pueblo called Pajarito, on the southern end of the Valle de Atrisco.

Atrisco

Era: 19th Century

Significance: Atrisco's rich history began in the seventeenth century. The nineteenth century brought more traffic to the west side of the Río Grande and to Atrisco.

Annotated History: Richard Greenleaf and Joseph Metzgar point to a 1662 attempt by Governor Peñalosa "to found a villa in the midst of the settled region, in a valley called Atrisco" as the earliest evidence for the existence of this settlement (Greenleaf 1967:5; Metzgar 1977:269). This document went on to call Atrisco "the best site in all New Mexico" (Hackett 1937:265). Before the 1680 Pueblo revolt this area was well populated, according to documents cited by Charles Wilson Hackett (Hackett 1911:129). Maestro de Campo Juan Domínguez de Mendoza testified to going by his old hacienda "in the jurisdiction that they call Atrisco" on 8 December during the 1681 attempt to reconquer New Mexico (Hackett and Shelby 1942:II.258; Hackett 1915:383-384).

In 1692, Fernando Durán y Chávez, a resident of the area before the 1680 revolt, asked Governor Vargas for a grant to the lands of Atrisco and Vargas assented. In 1701, Durán y Chávez officially petitioned for a grant. Atrisco

was resettled in March 1703 (Sánchez 1998:9-12; Armijo 1929:278-279).

Menchero described Atrisco along with the villa of Alburquerque in 1744. He wrote that the two were on the banks of the Río Grande, engaged in farming and weaving, and were administered by a priest in the villa (Hackett 1937:400-401). In 1760, Bishop Tamarón noted the danger faced by the priest in Alburquerque when he crossed the Río Grande to minister to citizens on the west bank. Such a crossing would have taken him to Atrisco and shows that Atrisco was an ecclesiastical dependency of Alburquerque (Adams 1953:202; Sánchez, 1998:17; Simmons 1973:10). Fray Domínguez gave a brief description of "Atlixco" in 1776. He placed it directly across the river from Alburquerque on a beautiful sandy plain and cited a population of 52 families, 288 persons. He also referred to it as Atlixco and Atrisco of Alburquerque (Adams and Chávez 1956:154,207,243).

When Zebulon Pike traveled down the Río Grande as a Spanish prisoner in 1807, he crossed the Río Grande from east to west "a little below Alburquerque" on 7 March. In 1895, Coues identified the ford as Atrisco, a common crossing before the advent of roads and the railroad (Coues 1895:II.621,625; III.946).

Los Ranchos de Alburquerque, Old Town Albuquerque

Albuquerque, New Mexico Era: 18th and 19th Century

Significance: Alburquerque was founded as a villa in 1706 in a rich agricultural region of New Mexico. Its "Old Town" plaza was the original town center.

Annotated History: Evidently, the decision to settle the "Bosque Grande of Doña Luisa" was made in 1698. A manuscript from February 1706 showed that Governor Cuervo y Valdéz authorized the actual settlement, which took place shortly thereafter. A church, dedicated to Saint Francis Xavier, was quickly built and soldiers sent to guard against Indian raids

(Greenleaf 1964:6-7). The pre-revolt estancia of "Doña Luisa de Trugillo" has been placed three leagues south of Sandia Pueblo. The area of Alburquerque contained 19 Spanish landholding Spanish families before the 1680 revolt (Twitchell 1911:I.364).

Among the reasons for Governor Cuervo's choice of site were that it was on the Camino Real, near a good ford of the river to the west, and directly west of a pass (Tijeras) to the plains (Simmons 1980:191). In addition, estancias were already scattered for a league up and down the river, from Alameda to the swamps of Mejía, before the 1680 revolt (Simmons 1980:197-202).

On I June 1726, after passing the pueblo of Isleta, Rivera went four leagues to the Villa of Alburquerque, a settlement of Spaniards, mestizos and mulattos who lived in various ranchos. The name was changed to Albuquerque after the United States militarily occupied New Mexico (Alessio Robles 1946:51). In 1754, Father Trigo referred to "the site of the Villa of Alburquerque, for the settlers, who inhabit it on Sunday, do not live there." He added that they spent most of their time on their farms in Alameda (Hackett 1937:464), and likely Atrisco and other villages as far down as Pajarito.

On 20 May 1760 Bishop Tamarón described Alburquerque as a villa composed of Spanish citizens and Europeanized mixtures. He wrote that their priest and missionary was a Franciscan friar, and that it was located 10 leagues north of Tomé. He counted 270 families totaling 1814 persons. Eleanor B. Adams added some other population estimates from the same era in a note (Adams 1953:202). Lafora camped at this villa of 70 Spanish families on 16 August 1766 and commented on its militia of 80 well-armed and mounted men, its civil officials, and the Franciscan priest (Alessio Robles 1939:96).

In 1776 Fray Domínguez wrote that the "mission of the Villa of San Felipe Neri de Alburquerque" was "four leagues down the road to the south on the same plain as the mission of "Our Father Santo Domingo." The church and convent were about "two musket shots" from the Río Grande. Until 1706 the general area of Alburquerque was variously called

"Bosque Grande," "Bosque Grande de Doña Luisa," "Estancia de Doña Luisa de Trujillo," and "Bosque Grande de San Francisco Xavier" (Adams and Chávez 1956:144).

When Zebulon Pike traveled down the Río Grande as a Spanish prisoner in 1807, he described the Alburquerque area as the best cultivated and inhabited that he had yet seen. He later referred to Alburquerque and El Paso as the second cities of the province of New Mexico. As he passed through on 7 March, he observed the residents opening irrigation canals from the river for the purpose of cultivating the plains and fields on both sides of the river (Coues 1895:II.619-621,739).

Wislizenus arrived in Alburquerque from the east on 12 July 1846 after going away from the Río Grande to explore some mines to the south of Santa Fé. He commented that an abundance of stock was grazing on the plain to the east of town and wrote that the surrounding countryside was irrigated and cultivated. He also noted that Alburquerque was spread along the river for several miles and was comparable in size to Santa Fé. His caravan was delayed north of Alburquerque when rain damaged part of the road that followed the river. Eventually they made it to a higher road to the east that also became impassable just south of Alburquerque. Wislizenus wrote that although some caravans crossed to the west bank of the river at Alburquerque and recrossed at Socorro, his did not, electing to remain on the east bank throughout its journey (Wislizenus 1848:33-34).

Later in 1846 Abert advised travelers to cross to the west at Alburquerque and back in the area of Fray Cristóbal (Abert 1962:120). ccording to George Rutledge Gibson, Doniphan's army followed Abert's advice in December 1846. It crossed the Río Grande east to west at Alburquerque and followed the west bank to Valverde (Bieber 1935:284). In the autumn of 1848 an army unit went south through Alburquerque, mentioning a stop in "Las Varelas," now the Barelas neighborhood, and then crossed to the west bank near Isleta (Bieber 1936:325-326).

The high road mentioned by Wislizenus was known as La Ladera Road. It ran along the foothills on the east side of the river valley to avoid the valley bottom as needed because of floods and swampy conditions. Though it undoubtedly received much use through the centuries there are no plazas from before 1800 along it to highlight as parajes. It is reasonable to assume that travelers most often took their rests at populated places, such as Indian pueblos, Alburquerque after 1706, and estancias, whose locations are, in general, unknown (Sargeant and Davis 1986:175-177).

Alameda

Era: 18th and 19th Century

Significance: Alameda was the name given by early Spanish settlers to a Tiwa pueblo on the west side of the Río Grande. The Alameda land grant, founded in 1710, was originally on the west side of the river. Later, the name was ascribed to its Spanish community on the east bank that was founded in Alburquerque's north valley. Alameda, today, is unincorporated.

Annotated History: In his account of the Sánchez Chamuscado entrada, Gallegos located the Tiwa-speaking pueblo of Santa Catalina on the west side of the Río Grande and upriver of those pueblos generally agreed to be in the vicinity of Isleta, New Mexico. This was probably the site of Alameda pueblo at the time (Mecham 1926:277; Hammond and Rey 1927:46). On 14 February 1583, Espejo's party left *El* Corvillo and continued north along the Río Grande for four leagues before coming upon two pueblos whose residents had fled to the mountains at the approach of the Spaniards. They called these Los Despoblados. On 16 February, they again headed north, and after five leagues encountered another deserted pueblo. This time they took provisions, including turkeys, after whom they named the pueblo "Los Guajolotes." This was probably the pueblo later known as Alameda (Hammond and Rey 1929:79; Vivian 1932:50- 52).

In 1681 and before, Alameda was located on the west bank of the Río Grande 71/2-8 leagues

above Isleta. It was reached from Isleta and Atrisco without a river crossing and then the river was forded to reach Puaray and Sandia (Hackett and Shelby 1942:I.227-230; Hackett 1915:381).

The claims of the Town of Alameda and Elena Gallegos grants posit a different course for the Río Grande through the Alameda area in the early eighteenth century, one that ran close to hills east of the present bed. José Urrutia's map of 1769 placed Alameda on the east side of the Río Grande, showing that the river changed course to its present bed sometime between 1710 and 1769 (Town of Alameda Grant:20- 21,83; Elena Gallegos Grant:3; Sargeant 1987:39- 44).

The church there was dedicated to Santa Ana, according to Vetancurt, and it was burned in the 1680 revolt (Vetancurt 1961:267). In his reminiscences, recorded in 1777, Juan Candelaria gave a post- conquest history in which Alameda was repopulated in 1702 by Tiwa Indians; they were relocated to Isleta in 1708; the town was settled by Spaniards in 1711; and construction of the church began in 1712 (Armijo 1929:276-278). In 1754, Father Joséj Manuel San Juan Nepomuceno y Trigo reported that the residents of Alburquerque actually lived at their farms located in Alameda and only inhabited Alburquerque on Sunday (Hackett 1937:464). Actually, Alburquequenses lived up and down the valley from Bernalillo to Pajarito.

The post-revolt Hispanic plaza of Alameda was located immediately north of the intersection of Río Grande Boulevard and Alameda Road until 1903. At that time, destruction by floodwaters forced the church to move southeast to its present location (Sargeant 1987:45; Steele 1995:165; Sargeant and Davis 1986:19).

Sandia Pueblo

Era: 17th, 18th, and 19th Century

Significance: Sandia pueblo was deserted after the Pueblo Revolt of 1680. The earliest known reference to that name is 1611. The Spanish resettled the pueblo in the middle of the eighteenth century.

Annotated History: In his 1634 memorial, Benavides counted "San Francisco de Sandia" as one of the two convents of the "Tioas" nation. He noted that the body of Fray Francisco López of the Sánchez Chamuscado expedition was interred in that convent (Hodge, Hammond, and Rey 1945:64-65). In 1692, Vetancurt described a large church, dedicated to Saint Francis, and a good convent at "Zandia." It was razed in the revolt of 1680, but not until the padres had escaped (Vetancurt 1961:268).

In 1681, Sandia was one league above Puaray on the east side of the Río Grande (Hackett 1915:381). Many of the inhabitants of Sandia fled to the Hopi region after the revolt of 1680 and Otermín destroyed the pueblo in 1681 (Hackett 1937:464). On 2 June 1726 Rivera found only the remnants of the pueblo of Sandia, five leagues north of Alburquerque (Alessio Robles 1946:51).

In 1777, Juan Candelaria recalled that Father Juan Miguel de Menchero resettled Sandia with Tiwas and some Moquis (Hopis) in 1746 (Armijo 1929:280). The resettlement date has also been given as 1748 (Hodge, Hammond, and Rey 1945:64-65,253-258). In 1754, Sandia was reported to contain some fifty families (Hackett 1937:464).

In 1759 Bishop Tamarón wrote that this pueblo of Moqui and Tiwa Indians was new and located four leagues north of Alburquerque. He found one Franciscan missionary parish priest who administered 35 families of settlers, totaling 222 persons. He described the Indians as living apart in their tenements, separated after the "manner customary in this kingdom." The Tiwa section housed 51 families totaling 196 persons while that of the converted Moqui Indians held 16 families, totaling 95 persons (Adams 1953:203). On 17 August 1766, Lafora estimated that this pueblo was five leagues north-northeast of Alburquerque. The Tiwas and "Moquiños" there were administered by a Franciscan cleric (Alessio Robles 1939:97).

In 1776 Fray Domínguez wrote that from Santo Domingo one traveled south some seven leagues downstream along the meadow of the Río Grande, which was on the east bank. He

described the pueblo and mission of "Nuestra Señora de los Dolores de Sandia" as being located 16 leagues from Santa Fé. In the Sandia registers the title was also given as "Our Lady of Sorrows and St. Anthony." Domínguez wrote that the convent resembled nothing more than the old half-fallen houses usually found in Indian pueblos near Mexico City. He wrote that the pueblo lay to the east of the church and convent, below their facade. It was arranged and built in three small blocks, or buildings, to the north and two small plazas to the south. Everything was made of adobe and distributed and arranged like the other missions. The pueblo still housed Indians of two nations, the majority being Tiwas and the others Moquis. In his census the Indians number 92 families, totaling 275 persons (Adams and Chávez 1956:138-139,141-144).

Pike referred to this as "St. Dies" when he passed by it on 6 March 1807. He noted that it was administered by the priest from San Felipe and contained a population of 500 (Coues 1895:II, 618-619).

Bernalillo

Era: 18th and 19th Century

Significance: Bernalillo was a heavily populated district when visited by sixteenth- century Spaniards. It continued that tradition as a Spanish community, though it was not generally visited by the bulk of travelers who were across the river on the east bank. Alburquerque was founded by settlers from Bernalillo.

Annotated History: Coronado headquartered his expedition in the Bernalillo area in 1540-1541 (Julyan 1996:36). According to the Gallegos account of the 1581 Sánchez Chamuscado journey into New Mexico, the Tiwa pueblos of Analco, Culiacán, Villarrasa, and La Palma were encountered, in that order, going north along the west side of the Río Grande. The Tiwa pueblos of Zenpoala, Nompe, Malpais, and Caseres were found along the east side of the Río Grande. Caseres seems to have marked the northern end of the Tiwa pueblos. All of these were probably located in

the area of modern Bernalillo (Mecham 1926:277- 278; Hammond and Rey 1927:46- 48).

Julyan writes that the name "Bernalillo" dates back to the seventeenth century though he contradicts himself as to the specific date. Julyan suggests that (Julyan 1996:16-17,36-37). Fray Angelico Chávez also speculates that the name "Bernalillo" may have come from a priest in New Mexico named "Bernal" or from "Bernardo", the son of Fernando Duran y Chávez, an early settler. In either case it was bestowed before the 1680 Pueblo Indian revolt (Chávez 1948:111).

The Bernalillo that was founded, or refounded, after the revolt, stretched for several miles upstream of its present location and probably on the west side of the Río Grande. Some colonists built a plaza and a church, which was dedicated to San Francisco, in 1695 (Kessell 1989:313). In his 1777 reminiscences, Juan Candelaria noted that a convent was built in Bernalillo sometime after 1698, but it was destroyed by flood in 1735-36 (Armijo 1929:276).

In 1776 Fray Atanasio Domínguez wrote that the mission in Sandia also had charge of the administration of some citizens divided into two small groups one of which, two leagues to the north, was called Bernalillo. It had 27 families with 81 persons (Adams and Chávez 1956:144). Lafora gave this name to a collection of ranchitos scattered along both sides of the Río Grande between the pueblos of Sandia and San Felipe in New Mexico on 18 August 1766 (Alessio Robles 1939:97). On 11 November 1780, Anza placed Bernalillo six leagues south of Santo Domingo (Thomas 1932:197-198).

Santa Ana Pueblo

New Mexico

Era: 17th, 18th, and 19th Century

Significance: Santa Ana has remained an important pueblo throughout the colonial, Mexican, and U.S. periods.

The old village which the Spaniards knew as Tamayo, was located on the north bank of the

Jémez River against the cliffs of Black Mesa. There they built a mission church about 1600 and, like most of the Spanish missions, it was destroyed during the Pueblo Revolt. The pueblo was reoccupied after the revolt; however, the re-occupation did not last. The U.S. Census for 1890 found the old pueblo deserted.

The Camino Real ran close by Santa Ana Pueblo and the pueblo provided foodstuffs to travellers.

Coronado State Monument, Kuaua Pueblo

Bernalillo, New Mexico NATIONAL REGISTER Era: 17th and 18th Century

Kuaua is a Tiwa word for "evergreen." It was first settled around AD 1300 by American Indians who had long known about the fertile land near the Río Grande. Successful at agriculture elsewhere, many moved into the area, allying themselves with the local population. The resulting pubelo flourished and grew, as did the many neighboring villages along the life-giving Río Grande.

In 1540 Francisco Vasquez de Coronado - with 300 soldiers and 800 Indian allies from New Spain - entered this valley. Coronado's expedition was searching for the fabled cities of gold but instead found villages inhabited by properous native people. Coronado's party camped near the Tiwa pueblo of Kuaua, one of the many villages contacted by the explorers. Acording to the Handbook of North American Indians, (Vol. 9, p. 146) Kuaua was found to be occupied during the time of the Spanish Entradas.

Kuaua is an earthen pueblo excavated in the 1930s by WPA workers, who also reconstructed new ruin walls over the reburied original ruins. A square kiva, excavated in the south plaza of the community contained many layers of mural paintings. These murals represent some of the finest examples of Pre- Columbian mural art in North America. Both the kiva and one of the mural layers are reconstructed and open to visitors, while several of the preserved mural segments are open to viewing in the mural room of

the visitor center. The visitor center also contains prehistoric and historic Indian and Spanish colonial artifiacts exhibits with weveral hands- on components.

San Felipe Pueblo

Era: 17th, 18th, and 19th Century

Significance: Although it evidently moved at some point, San Felipe has remained an important pueblo throughout the colonial, Mexican, and U.S. periods.

Annotated History: The Sánchez Chamuscado party of 1581 visited a Keres pueblo that they named "Palomares." It sat across (west of) the Río Grande from "Campos," or Santo Domingo, near modern Cubero. It has also been

identified as "Kat- isht- ya, or the first San Felipe," (Mecham 1926:278- 279; Hammond and Rey 1927:47- 48).

On 30 July 1598 the Oñate expedition passed "Sant Phelipe" while heading to Santo Domingo (Pacheco, Cárdenas y Torres 1871:XVI, 254). Vetancurt reported in 1692 that the convent at "San Phelipe" was a well-stocked infirmary. It also had a music chapel ("Capilla de musicos") and, together with the smaller Santa Ana pueblo nearby, accounted for many faithful. There were 600 persons in the two pueblos (Vetancurt 1961:270). Otermín reported stopping by San Felipe during his retreat from Santa Fé in 1681. Hackett and Shelby note that the river was running very high at the time, making it unlikely that the party would cross to visit the pueblo. They conclude that the pueblo may have been on the east side of the river during the seventeenth century (Hackett and Shelby 1942:I.22; I.xlii).

On 2 June 1726 Rivera found the Keres pueblo of San Felipe five leagues from Sandia and ten from Alburquerque, on the west side of the river (Alessio Robles 1946:51). In 1744, Fray Juan Miguel de Menchero placed San Felipe three leagues from Santo Domingo and 15 from Santa Fé. Menchero added that the pueblo had earlier been located atop the adjacent mesa but had moved down to the river after the revolt of 1680 (Hackett 1937:404). In 1760 Bishop Tamarón

located this pueblo four leagues south of Santo Domingo and on the opposite side of the Río Grande (Adams 1953:203). A Franciscan priest ministered to "Keres" Indians in this mission, which Lafora thought was two and a half leagues southwest of Santo Domingo pueblo on the right bank of the Río Grande (Alessio Robles 1939:97). In Morfi's 1782 description of New Mexico he described the locale of San Felipe as a narrow place between the Río Grande and a stony mesa 12 leagues from Santa Fé. Morfi echoed Menchero's description of the pueblo moving off the mesa after 1680 (Thomas 1932:97). According to Joseph P. Sánchez, San Felipe was atop the mesa at least as late as 1696 (Sánchez 1998:11).

Zebulon Pike traveled down the Río Grande as a Spanish prisoner in 1807. On 6 March he crossed the Río Grande to the west bank by a wooden bridge of eight arches and entered the pueblo which he called "St. Philip's." Upon leaving, he recrossed the bridge and continued down the east side of the Río Grande. He marked San Felipe's population as 1,000 (Coues 1895:II.616-618).

Regardless of whether or when San Felipe was located on the east bank or atop a mesa on the west bank the paraje would have been adjacent to the east bank of the river alongside the Camino Real. Trade with the pueblo would have occurred on either side of the river. Notwithstanding the location of the *paraje*, lodging in the pueblo during the colonial period was common.

Santo Domingo Pueblo

Era: 17th, 18th, and 19th Century

Significance: In the seventeenth century, Santo Domingo boasted the best convent in New Mexico and was the repository of the Franciscans' archives. It remains an important pueblo in New Mexico.

Annotated History: Going north from Tiwa country during their 1581 entrada, Sánchez Chamuscado entered the land of the Keres speakers at the pueblo which they called

"Campos." It was found on the east side of the Río Grande in the vicinity of the pueblo of Santo Domingo (Mecham 1926:278-279; Hammond and Rey 1927:47-48). On 8 and 9 March 1591, Castaño de Sosa moved his camp from San Marcos in the Galisteo basin to a point near Santo Domingo. Apparently Castaño gave the pueblo its Spanish name. Later, it was at a ruined pueblo near Santo Domingo and "Gipuy" that he was arrested by Morlete (Hull 1916:328-330; Schroeder and Matson 1965:142; 157-160; Pacheco, Cárdenas y Torres 1871:IV, 347).

On the night of 27 June 1598 Oñate came six leagues from Puaray to Ji- pi- y or Santo Domingo in order to impress into service, as translators and guides, two Indians named Tomas and Xupal. They were arrested on the 28th and brought back to Puaray. On 30 June 1598, they were back in Santo Domingo, in whose province the "Convent de Nuestra Señora de la Asumpcion" was erected (Pacheco, Cárdenas y Torres 1871:XVI, 253-254; Mecham 1926:278). On 7 July 1598 a general council of seven Indian chieftains of different New Mexico provinces was held at Santo Domingo. Each pledged obedience to the Spanish king (Pacheco, Cárdenas y Torres 1871:XVI, 256). When the Oñate expedition returned to Santo Domingo on 27 July 1598, Ginés de Herrera Horta, chief auditor and legal counsel to Oñate, reported seeing about 100 Indians dancing to celebrate the coming of the Spaniards (Hammond and Rey 1953:II.643,662). Captain Alonso Gómez Montesinos, one of the settlers of San Gabriel, stated that the Indians of Santo Domingo came to recite their prayers at the ringing of the bell and that the natives taught each other the prayers willingly and devoutly (Hammond and Rey 1953:II.711).

In 1662, Governor Don Bernardo López de Mendizábal was briefly imprisoned by the Franciscan Friars in the *baptisterio* of Santo Domingo before he was transported to Mexico City for his trial before the Inquisition (Primera Audiencia de don Bernardo López de Mendizábal, 1663). In his 1692 treatise, Friar Vetancurt wrote that the convent at Santo Domingo was the best of the custodio and

noted that it was the repositoy of the Franciscans' archives. The church and all of its imágenes were burned in the 1680 rebellion and three priests were killed. He went on to describe the road to Santa Fé as "flat" (Vetancurt 1961:270).

On 2 June 1726 Rivera found Santo Domingo, two leagues from San Felipe, inhabited by the Keres Indians. This same day he met with the governor of this region, who was then Juan Domingo de Bustamante, governor from 1722 to 1731 (Alessio Robles 1946:51). Menchero described Santo Domingo as twelve leagues from Santa Fé on the banks of the Río Grande (Hackett 1937:404). In 1760 Bishop Tamarón wrote that Santo Domingo was located six leagues north of Sandia. He wrote that there were no settlers and that the mission priest was a Franciscan friar. He counted 67 families of Indians, totaling 424 persons (Adams 1953:203).

In 1776 Fray Domínguez described the river Las Bocas as joining the Río Grande from the plain above the "Mission of Our Father Santo Domingo" (Adams and Chávez 1956:41). He wrote that Santo Domingo was reached by traveling about nine leagues from Santa Fé to the southwest. It was established and located in full view of the Río Grande. He stated that there were two churches in this mission, one old and the other new. Floods destroyed these buildings in 1886; the present church at Santo Domingo dates from about 1890 (Adams and Chávez 1956:137).

Fray Domínguez described the rancho of a citizen and his family located one league north on the same plain. This was the "Rancho de José Miguel de la Peña" from 1777 to 1780, the "Rancho de Peña" in 1791, and from 1792 on it was "Rancho de la Peña Blanca." He wrote that the pueblo of Santo Domingo consisted of six blocks, or buildings, of dwellings. The whole pueblo was surrounded by a high adobe wall with two gates. In order to reach the pueblo one had to travel the highway going up or down. He observed abundant cultivated lands above and below the pueblo, as well as on the opposite bank, and also small peach and apricot trees and an abundance of melons and watermelons. He

wrote that the Keres of this pueblo were commonly called "Chachiscos" as well. In his census, Fray Domínguez counted 136 families, totaling 528 persons (Adams and Chávez 1956:130-138).

Ten leagues from Santa Fé, New Mexico by the main road, this "Keres" pueblo and Franciscan mission was visited by Lafora on 18 August 1766. There, the main road left the Río Grande for the final stretch into the capital (Alessio Robles 1939:97). When, on 10 November 1780, Anza left Las Golondrinas and traveled six leagues south to the pueblo of Santo Domingo, he met two Navajo Apaches who wanted to exchange a young Spaniard from "Presidio del Paso" for a little girl who was a captive. The next day Anza turned her over to "her owners" (Thomas 1932:197).

Zebulon Pike traveled down the Río Grande as a Spanish prisoner in 1807. On 5 March he arrived at the pueblo of Santo Domingo, which he reckoned had a population of about 1,000 "Keres" Indians. Although he thought little of the buildings in the pueblo he was quite impressed by the elegant ornamentation of the paintings and statues of the patron saint in the church. He also noted the view of the river and the "St. Dies" or Sandia mountains (Coues 1895:II.615).

Cochiti Pueblo

Era: 17th, 18th, and 19th Century

Significance: Cochiti has remained an important pueblo throughout the colonial, Mexican, and U.S. periods.

This small Keresan pueblo has occupied the same site on the west bank of the Río Grande since 1250 A.D. The first European visitor was Fray Agustín Rodriguez in 1581. The Mission of San Buenaventura was built between 1625 and 1630 and was burned during the Pueblo Revolt.

When the reconquest began, the Cochiti people fled to a mountain stronghold named Cieneguilla. After de Vargas conquered Cieneguilla most of the Indians returned to Cochiti to help construct a new mission; it is still standing. The Camino Real ran close to Cochiti Pueblo and passed through a prehistoric Keresan pueblo.

San Marcos Pueblo

NATIONAL REGISTER, ARMS Era: 17th and 18th Century

San Marcos Pueblo was mentioned by Oñate on his way to San Juan Pueblo in 1598. It was a 1500 room pueblo although not all rooms were occupied at one time. San Marcos is the pueblo credited with mining in the Cerrillos hills, particularly the Turquoise. The Camino Real would go up Galisteo Creek and head north approximately on State Route 14 and pass San Marcos on its way to San Juan and/or Santa Fe.

La Bajada

Era: 17th, 18th, and 19th Century

At what is traditionally the dividing point in New Mexico between Río Arriba (Upper River district) and Río Abajo (Lower River district) travelers on the Camino Real could choose one of three ways to reach Santa Fe. (1) La Bajada Hill was the most difficult; (2) the Santa Fe River Canon (la Boca) was the most used in the colonial period; and (3) Galisteo Creek was used in territorial times to travel over the escarpment in the Juana Lopez Grant. Galisteo Creek was also traveled to a point south of San Marcos Pueblo where the road turned north past the pueblo and headed to San Juan Pueblo or to Santa Fe.

The community of La Badaja is a small settlement that was a freight depot, stage stop, and trading center for freighters during the 19th century, although Robert Julyan in Place Names says that it was established prior to 1680. Incoming freighters had to travel a winding route down the face of the nearby black basalt cliff, bracing their wagon wheels with boulders when they stopped. Northbound caravans rested before ascending the santa Fe River canyon, one of the more difficult passages of the entire route.

La Bajada Hill (Santa Fe; 11 mi SW of Santa Fe). From 1598, when Spanish colonists trudged beside lumbering oxcarts, to the early 20th century, when American tourists drove Model A automobiles, the steep and abrupt escarpment of La Bajada Hill was a notorious landmark on the road between Santa Fe and Albuquerque. The old route up La Bajada Hill was barely 1.5 miles long, but it traversed tough volcanic rock; in the 20th century it included 23 hairpin turns and was the scene of countless frustrations and mishaps, from overturned wagons to boiling radiators. Residents of the village of La Bajada (see entry) at the hill's base named a spot on the hill Florida because a truck carrying oranges overturned there. In 1932, a new route up the escarpment was laid out, followed today by I-25, and the original route, 5 mi N and W, fell into disuse, though a few drivers still attempt it to test their vehicles' toughness. The name La Bajada now is gradually being transferred to the new route.

During colonial times, La Bajada Hill was the dividing line between the two great economic and governmental regions of Hispanic NM, the Río Abajo, "lower river," and the Río Arriba, "upper river." The large, sprawling mesa on whose edge La Bajada Hill is located is called La Majada, "sheepfold," or "place where shepherds keep their flocks," but because the road from Santa Fe to the Río Abajo descended from the mesa here, the escarpment took the name La Bajada, "the descent." "Hill" was added to the name much more recently, an addition that often causes confusion to Spanish speakers, as the name now seems to consist of two generics.

La Ciénega

Era: 18th and 19th Century

Significance: This area has often been called the closest *paraje* to Santa Fé. It has been inhabited nearly continuously since before the arrival of the Spanish.

Annotated History: La Ciénega was a seventeenth- century pueblo that was resettled by Spaniards in the early eighteenth century. Schackel notes that it was also called El Guicú, San José del Guicú, and La Cañada del Guicú in the eighteenth century (Schackel 1979:5-8).

In 1777, Juan Candelaria's 1777 reminiscences included mention of the settlement of Cienega in 1715. He added that it was four leagues from Santa Fé and was watered by Los Ojos del Alamo (Armijo 1929:282-284).

In 1776 Fray Domínguez identified Ciénega Grande as the settlement below Cieneguilla and five leagues from Santa Fé. He wrote that it lay in a kind of nook between two cañadas, and that the outlines of ancient ruins were visible at the site of this settlement, which might have been "pagan" pueblos (Adams and Chávez 1956:41).

Morfi described Ciénega as a ranch on the Río de Santa Fé directly west of Alamo. It was home to four families (Thomas 1932:93).

Pike's 1807 map contained a town marked "Vitior" which Coues identified in 1895 as being at or near La Bajada. However, it has also been connected to the town of Cienega or Sienega, on a creek of the same name and two miles southeast of Cieneguilla (Coues 1895:II.613-614; III.950).

El Rancho de Las Golondrinas

Era: 18th and 19th Century

Significance: The Rancho de las Golondrinas, near La Ciénega, is now an historic site, commemorating many themes of Spanish colonial life, including the Camino Real.

Annotated History: According to Schackel, the name Las Golondrinas first appeared in documents in the 1770s. The rancho was also known as the Baca y Terrus hacienda, El Rancho de los Bacas, and the Sandoval ranch. It was directly north of the ranch of El Guicú, a name associated with La Ciénega. El Alamo lay to the north and La Cieneguilla to the west (Schackel 1979:8). El camino del Alamo appears on Urrutia map of Santa Fe dated 1766.

On 9 November 1780 Anza left Santa Fé and traveled four leagues south to the pueblo of Las

Golondrinas (Thomas 1932:197). Morfi's description, from 1782, placed Golondrinas next to Alamo on its east. It belonged to the resident Sandoval family (Thomas 1932:93).

William Carr Lane described Las Golondrinas as a ranch twelve miles of good road from Santa Fé (Schackel 1979:30).

El Alamo

Era: 18th and 19th Century

Significance: El Alamo was one of several ranchos in the La Ciénega area at which travelers could rest as they were entering or leaving Santa Fé. The camino del Alamo shown on Urrutia's 1776 map of Santa Fe indicates it is a variant of the Camino Real.

Annotated History: Sandra Kay Schackel writes that El Alamo in the time of Vargas was an abandoned estancia that was just north of La Ciénega and Las Golondrinas (Schackel 1979:6).

Juan Candelaria described Alamo, settled in 1730, as near to and similar to, Ciénega and four leagues from Santa Fé (Armijo 1929:283-284).

On 24 May 1760 Bishop Tamarón reached the house of El Alamo, six leagues from Santo Domingo. He described it as large, with an upper story and many corridors (Adams 1953:203).

In 1782, Morfi described Alamo as a small ranch of one Spanish family one quarter league south of Cieneguilla (Thomas 1932:93).

Cieneguilla

Era: 18th and 19th Century

Significance: Cieneguilla was a *paraje* near Santa Fé for travelers who followed the Río de Santa Fé to or from the capital.

Annotated History: In 1777, Juan Candelaria recalled that the seventeenth- century settlement of Cieneguilla took place in 1698. It was four leagues from Santa Fé and was watered by the Río de Santa Fé (Armijo 1929:282- 283).

In 1776 Fray Domínguez wrote that two roads went down from Quemado like a V and led to two settlements or ranchos, both of which were to the southwest. They were two leagues apart and about five leagues from Santa Fé. The higher settlement was called Cieneguilla; it was in a canyon that came down from San Ildefonso Springs where it met the channel of the Santa Fé River. There were a number of springs a little below this settlement, which he thought were a resurgence of the Santa Fé River. These springs ran west in little ravines (Adams and Chávez 1956:41).

Morfi's 1782 description of New Mexico portrayed "La Ciénegilla" as a ranch four leagues west of Santa Fé on the banks of the Santa Fé River. Nine Spanish families resided at Cieneguilla (Thomas 1932:93).

Pike's 4 March 1807 description of his route south out of the capital is rather vague but as interpreted in 1895 by Elliot Coues it forked near Agua Fria. The left fork met the Santa Fé River at the town of Cieneguilla and then followed it to La Bajada (Coues 1895:II.613-614).

In December 1846, Abert nearly lost his life and then his mule when he attempted a shortcut across some marshy land at Cieneguilla. Only the fact that much of the ground was frozen allowed him to escape and to save the mule (Abert 1962:139).

Agua Fria/Quemado

Era: 19th Century

Significance: While perhaps too close to Santa Fé to see much use as a *paraje*, Quemado and Agua Fria were visited by many travelers into and out of the capital throughout the colonial, Mexican, and U.S. periods.

Annotated History: The 1766 plano drawn by José de Urrutia demonstrates the physical layout of the Villa de Santa Fe. Juan Candelaria remembered that Cristóbal Baca settled Quemado in 1730. Candelaria placed it one and one quarter league from the capital and added that it was irrigated from the Río de Santa Fé

(Armijo 1929:284-286). In 1776 Fray Domínguez wrote that Quemado was one league west and at the very outskirts of Santa Fé. It was an Indian pueblo in the old days and had this name because it was purposely burned. The settlement near this place was later called Agua Fría. The burned pueblo was excavated after the Santa Fé River laid part of it bare (Adams and Chávez 1956:41).

When Pike left Santa Fé under Spanish escort on 4 March 1807, he followed a road which took the high ground between the Río de Santa Fé and Arroyo Hondo. Just past Agua Fria it forked, with both forks eventually reaching La Bajada and the Río Grande (Coues 1895:II.613-614). Years later, when Wislizenus prepared to leave Santa Fé for Chihuahua on 8 July 1846, he met the caravan that he was traveling with at their camp in Agua Fria. From there, the caravan took "the usual road, by Algodones, for the Río Grande" (Wislizenus 1848:29).

Palace of the Governors

Santa Fe, New Mexico NATIONAL REGISTER, NATIONAL HISTORIC LANDMARK Era: 17th, 18th, and 19th Century

Significance: Originally constructed in the early 17th century as Spain's seat of government for what is today the American Southwest, the Palace of the Governors in Santa Fe chronicles and documents the history of the city, as well as New Mexico and the region. As a Presidio the Palace served many times as an end destination for travelers and supply caravans on the Camino Real. New Governors of the Province of New Mexico and outgoing Governors would travel the Camino Real to and from Mexico. Soldiers from this presidio would escort trains and campaign against Indian Nations along and in the Camino Real corridor. The Palace of the Governors since it was built c. 1610 up to the present day was and remains a keystone landmark on El Camino Real de Tierra Adentro.

Museum exhibits and collections, and library and archives holdings reflect the Spanish colonial, Mexican, U.S. Territorial and Statehood periods of history. The adobe building was designated a Registered National Historic Landmark in 1960, and an American Treasure in 1999.

El Palacio-1610

New Mexico's famed Palace of the Governors, the anvil on which was shaped so much of the history of Western America, has been called "the oldest public building, continuously used, within the continental borders of the United States." This claim is too modest. Almost certainly, the Palace is the oldest European- built structure of any kind now standing within the nation's seaboard limits.

We say "almost certainly." The old Palace has no dated cornerstone, and no written account of the laying of its first adobe brick has yet been found. But the Archives of the Indies, in Seville, Spain, still contain a copy of the orders given in March, 1609, to Don Pedro de Peralta, New Mexico's third Spanish governor, directing him to establish a new capital in the province and to have its officials "designate . . . one block of the streets for the erection of Royal Houses." In the spring of 1610, historians believe, the new Villa de Santa Fe was founded. The "Royal Houses" (Casas Reales)—residence of the governor, stronghold and arsenal, civic and military nub of the whole new little settlement—would have received priority over any other construction except, perhaps, that of a temporary church. We can be reasonably sure that by the winter of 1610-11 Governor Peralta had a dirt roof over his head and stout adobe walls around him.

Fourteen hundred miles to the east, other Spaniards had founded St. Augustine, Florida, in 1565. After a first unsuccessful venture on Roanoke Island in 1585 Englishmen came back to Virginia in 1607 and built the little city of Jamestown. All other settlements on the nation's east coast, beginning with the New Amsterdam of the Dutch in 1614 and the English Pilgrim s Plymouth in 1620, were later than Santa Fe.

Today, of the sixteenth and early seventeenth century structures of St. Augustine, which were built of wood, nothing remains. All of Fort Raleigh now visible above ground on Roanoke Island is a reconstruction. Jamestown's first buildings, also wooden, have vanished. Even the very first Dutch or English-built structures in what are now New York and New England are completely gone.

But Santa Fe's adobe Palace—the first and now the last of Governor Peralta's "Royal Houses"—still stands.

Not much is known of its earliest decades. Archives in Europe and Mexico have yielded tantalizing hints about new apartments built by Peralta's successors in office, a room where Indians masked and robed themselves for dances in the Plaza (much to the disapproval of the churchmen, who were at odds with the governors, most of these years), drawing-rooms and dressing-rooms of the governors' wives, even a shop in the Palace where one thrifty governor eked out his royal salary by selling chocolate, shoes and hats to the citizens.

By 1680, the walled and fortified "Royal Houses" had grown large enough, we are told, to accommodate "more than a thousand persons, five thousand head of sheep and goats, four hundred horses and mules, and three hundred head of beef cattle, without crowding." All these settlers and their livestock, congregated from upcountry and down, had urgent need of a fort that year. The Pueblo Indians had revolted, killing more than four hundred Spaniards in outlying villages, farms and missions, and descending in fury upon Santa Fe. Governor Otermín battled them in the Villa for eight days and flame-filled nights, until they diverted a ditch which supplied the Casas Reales with water—and by this ruse broke, temporarily, Spain's hold upon New Mexico. Out of the main gate of the fort, across Santa Fe's bloody Plaza and through the smoking ruins of the town, Otermín led his people south, to the safety of settlements below what is now El Paso, Texas. There they stayed for twelve years, while the Indians settled down in what their torches had left of Santa Fe.

They made a bonfire of the official archives, which is why we know so little about the pre Revolt Palace. Copies of some documents had

been sent to Mexico and Spain, but the New Mexican records there, too, have suffered from looting and fire over the centuries. If floorplans of the early Casas Reales ever were drawn, they either went up in smoke in 1680 or later, or still await finding by some modern researcher luckier than his fellows thus far.

Reconquest

When Governor and Captain- General Don Diego de Vargas brought his reconquistadores back to Santa Fe in 1692, he found the Casas Reales transformed to a high-walled pueblo, with a fortified main gateway opening on the Plaza and a tower at each of its four corners. It comprised, he said, "what was formerly the major portion of the Palace and Royal Houses of the governor," and he found it such an impregnable stronghold that to retake it on his second trip, a year later, he had to use the Indians' earlier stratagem of cutting off its water supply. And afterwards, bitterly, he accused his successor in office of allowing all those lofty walls and towers, which had given him so much trouble, to fall into ruin.

They were never rebuilt as he wanted them to be, for conditions had changed. Before 1680, the entire Casas compound, covering many acres north of Santa Fe's main plaza, had been at once a fortress, the seat of government, and the governor's residence. New Mexico then had no standing army; all the able-bodied male settlers were at the same time soldiers, subject to military call. They lived on their farms and in their own houses in the Villa. But Vargas brought back with him a paid presidio troop, and its men needed barracks.

These were not completed until many years later, and then they stretched west from the Palace and north in two long rows, along the lines of present- day Grant and Washington Avenues, to what is now Federal Place. There they were joined by another row, east and west. The exteriors formed a wall enclosing a roomy parade- ground, corrals, storerooms and outbuildings—and in the southeast corner the smaller compound of the remaining old *Casas Reales*. This, a rectangle based on the long

building on the Plaza which Vargas was the first to call *El Palacio Real*—the Royal Palace, included stables and guardrooms extending north from the ends of the Palace itself, two inner patios, kitchens and other service quarters, a coach-house and the governor's garden.

With the Palace now changed largely to a civil and domestic establishment, it entered into long years of complaints about leaky roofs, scanty furniture and missing door- keys, posted indignantly down to Mexico by its succession of royal governors. These changed to republican governors in 1822, when Mexico won its independence from Spain, and for the first time a large room in the Palace was fitted up as a meeting-hall of elected New Mexico Deputies. It was renamed a Council Hall in 1837, with a change in the form of government, and ten years later, with the United States flag flying over the Palace, it was made ready to house the first session of the Territorial House of Representatives.

The Palace was then half again as long as it is today, its west end being about where the southwest corner of the Museum's Fine Arts Building now stands. There was a tower at this end in which gunpowder had been stored, and near it were the jail and the Legislative Hall. These, in poor condition, were demolished in 1866, when Lincoln Avenue was opened from the Plaza to run north through the then Fort Marcy Military Reservation to the uncompleted Federal Building.

This loss of the western third of the Palace accounts for its former main hall, still running through the building from the Plaza to its inner patio, being off center. The hall undoubtedly was once a covered zaguan, through which horsemen and carriages could pass—the same exit, probably, through which Otermín led his despairing followers on that sad August day of 1680, starting their long flight to Mexico.

U.S. Occupation

The 1860's and 70's saw many other "improvements" of the old Spanish building, by its U.S. Government occupants. The east end, which also had its tower, was largely rebuilt to form two new halls for the Legislature and a separate Territorial Library. Old outbuildings at the rear were torn down and replaced by a new set much closer to the Palace itself than the others had been, thus reducing the size of the inner patio by more than half. As late as 1880, the patio was completely bare of grass and bore only a single cottonwood tree.

The portal along the front, probably first built in the 1700's (there is no mention of one in Otermín 1680 reports), was a plain affair of peeled logs and a dirt roof when General Stephen Kearny entered Santa Fe and occupied the Palace in August, 1846. It may have been given some thought by the new caretakers soon afterwards (a traveller in 1866 described it as an "American portico"), but it underwent a radical change in 1878. In that year it was replaced by a porch in true mid- Western Victorian style, with

posts of milled lumber, painted white, neatly set off by a full- length balustrade on the roof. This, which in its proud designer's words "elicited many expressions of gratification and pleasure," survived until 1913, when the present portal in New Mexican Spanish style was built.

The records reveal that from time to time, during its long history, the Palace became so dilapidated that the incumbent governors—or their wives—refused to live in it, and found quarters elsewhere in Santa Fe. Except for its thirteen years as an Indian pueblo, however, and also for a brief two months in 1862 when Sibley's Confederates were in Santa Fe, it never ceased to be the official residence and office of the Spanish, Mexican and United States civil and military governors from 1610 to 1900, when New Mexico's second "new" capitol building was erected. All in all—actual, acting and interim, with several serving more than one term—these governors numbered:

 Under Spanish rule, 1610 to 1822
 59

 Under Mexican rule, 1822 to 1846
 14

 Under United States rule, 1846 to 1900
 24

Brief Chronology of the Palace

- 1610......Built (probably) as the main structure of the "Royal Houses" in New Mexico's new capital.
- 1680......Occupied by the Pueblo Indians, after they had driven the Spaniards from Santa Fe.
- 1693.....Reoccupied by the Spaniards.
- 1807.....Lt. Zebulon Pike, U.S. Army, imprisoned in Palace jail.
- 1822......Mexican independence. The Palace no longer "Royal."
- 1837......José Gonzales, a Taos Indian, installed as governor during short-lived insurrection; soon afterwards executed.
- 1846......Occupied by General Stephen Watts Kearny, U.S. Army, on August 18th.
- 1862.....Occupied for two months by invading Confederate army from Texas.
- 1866......West third of building, and old outbuildings at rear, demolished. Extensive remodelling during next few years.
- 1869.......James L. Collins, U.S. Depository, found dead in office in west end of Palace, and safe robbed.
- 1870......Spanish and Mexican archives, in Palace since 1693, sold by Governor Pile as scrap paper.
- 1878-81....Governor Lew Wallace wrote large part of Ben Hur in Palace.
- 1900.......Palace given up as Capitol, upon completion of new Capitol Building in Santa Fe. Used as private offices, Post Office.
- 1909.......Palace became first unit of the newly formed Museum of New Mexico.

Santa Fe Plaza

Santa Fe, New Mexico NATIONAL REGISTER, NATIONAL HISTORIC LANDMARK

Significance: The Santa Fe Plaza was for a number of years the end of the Camino Real.

Annotated History: Castaño de Sosa's party may have passed near the future site of the capital on 7 January 1591 while going from Pecos pueblo to the Tewa pueblos to the north. He noted passing a river after crossing the mountains; this was probably the Santa Fé River just northwest of the present city (Hull 1916:324; Schroeder and Matson 1965:112).

In his 1634 memorial, Fray Benavides reported that Santa Fé contained some 250 Spaniards and their wives, families, and servants, a total of about 1000 people. The original church had collapsed but Benavides oversaw the building of a fine replacement (Hodge, Hammond, and Rey 1945:68). In Vetancurt's 1692 description of prerevolt New Mexico, the area between Santa Domingo and Santa Fé was depicted as flat and no settlements were noted between the two. This seems to indicate that he was thinking of a route through the Galisteo basin from the Río Grande to the capital. Vetancurt described an attractive plaza with some small artillery pieces and noted that the governor, some soldiers, and four priests had lived there before the 1680 revolt (Vetancurt 1961:270-271).

On 4 June 1726 Rivera traveled east from El Pino along the west bank of the Santa Fé river four leagues until he reached the villa of same name. He wrote that it was the capital of the "reino and provincia de la Nueva Mexico," and that its population was made up of Spaniards, mestizos and mulattoes. He stated that it served as the quarters for the presidio's 80 soldiers, whose salaries were paid for by the king (Alessio Robles 1946:52)

On 24 May 1760 Bishop Tamarón came four leagues east from the house of El Alamo to Santa Fé. On 25 May 1760 he visited the principal church, which he described as large, with a spacious nave and a transept adorned by altars and altarscreens, all of which he inspected. He

wrote that two Franciscan friars served this villa. The census showed 379 families of citizens of Spanish and mixed blood, which totaled 1285 persons. But, since Bishop Tamarón confirmed 1532 persons, he was convinced that the census was wrong. He also visited a church dedicated to the Archangel St. Michael. In the plaza, another church, dedicated to the Most Holy Mother of Light, was then being built. The chief founder of this church was the Governor, Francisco Marín del Valle. Tamarón noted that all the buildings of Santa Fé were adobe and that there was no fortress or any formal presidio building. The garrison consisted of 80 mounted soldiers.

In his general description, Tamarón wrote that the villa lay at the foot of a sierra, which was east of it and ran to the north. He explained that water was scarce because the Santa Fé River dried up in the months before harvest. From Santa Fé Bishop Tamarón visited Pecos, Galisteo, Tesuque, Nambe, Pojoaque, Picurís, and Taos (Adams 1953:204-215).

In 1776 Fray Domínguez described Santa Fé as the capital of the kingdom and seat of political and military government and of a royal presidio. He located it about 700 leagues to the north of the "great city of Mexico" and wrote that it was established on a very beautiful site at the foot of the Sierra Madre, which was not far to the east of the villa. The church was almost in the center of the villa, its titular patron "Our Seraphic Father St. Francis" (Adams and Chávez 1956:12).

Domínguez stated that the location and site of Santa Fé was as good as he had pictured it, but that its appearance, design, arrangement and plan did not correspond to its state as a villa. He described it as "a rough stone set in fine metal." He also compared Santa Fé to quarter of Tlatelolco in Mexico City and described its appearance as mournful. His opinion of the adobe houses was that they were made of earth, unadorned by "any artifice of brush or construction." Santa Fé consisted, at the time, of many small ranchos at various distances from one another, with no plan as to their location. There was a semblance of a street, which extended 400 or 500 varas from the west gate of

the cemetery of the parish church. According to Domínguez, this "street" lacked orderly rows of houses. He wrote that the harvest of Santa Fé consisted of wheat, maize, legumes and green vegetables, and fruits such as melon, watermelon and apricots (Adams and Chávez 1956:39-41).

Lafora arrived in the capital of the kingdom of New Mexico, on a good road, on 19 August 1766. He reported that a company of 80 men guarded a population of 2,324, divided among the families of the 80 soldiers, of 274 Spanish vecinos, and of 89 Indians of various nations. He judged the existing fortifications unusable for defense (Alessio Robles 1939:98). On 15 August 1779, Anza described marching north from Santa Fé along the Camino Real to the pueblo of "Pujuaque," where he and his troop stayed the night (Thomas 1932:123). By 10 September 1779, Anza and his army had returned to Santa Fé by way of Taos Pueblo where they picked up the Camino Real leading to the capital (Thomas 1932:139).

Zebulon Pike entered the city of Santa Fé as a prisoner of the Spanish government on 3 March 1807, coming from the north past old Fort Marcy. He described it as being only three streets wide and extending for a mile along the banks of the Río de Santa Fé, which he called a small creek. In 1895, Elliot Coues also referred to the Río de Santa Fé as the "Río Chacito." Pike contrasted the two magnificent churches with the modest appearance of the typical houses. The soldiers were quartered to the north of the central plaza, which was surrounded by the government palace on the north and, across from it, the clergy and public officers. He reported the population of Santa Fé to be 4,500 souls. On the next day, Pike left the capital heading south down the Santa Fé River to the Río Grande (Coues 1895:II.604-613).

The German born Wislizenus found Santa Fé disappointing for a capital when he arrived from Missouri on 30 June 1846. He reported a population of 3,000 in the city itself and 6,000 including nearby settlements. He said that, aside from two churches and the Palace of the Governors, all of the houses were one-story adobes scattered along "irregular, narrow, and

dusty" streets. He did admire the mountainous surroundings (Wislizenus 1848:19,28-29).

The Casas Reales, or the Palace of the Governors, was built in 1610 when Santa Fé was established. People took refuge in it during the Indian siege of August 1680. In 1731 it was recorded that Governor Bustamante had "built at his own expense the Casas Reales where the governors reside today" (Adams and Chávez 1956:22). Much of Santa Fé was built between 1610 and 1612. There were later additions, including a large military compound containing arsenals, offices, a jail, a chapel, and the governor's residence and office. The outer walls of adjoining structures served as the defensive walls of the compound and enclosed two interior plazas. The dwellings in these two plazas were three and four stories high (Sánchez 1989:28). The barrio of Analco, across the Río de Santa Fé from the plaza, was one of the main genízaro settlements of New Mexico from its founding at least until the late eighteenth century (Thomas 1932:91-92; Chávez 1979:199).

San Ildefonso Pueblo

New Mexico Era: 17th, 18th, and 19th Century

Significance: San Ildefonso has remained an important pueblo throughout the colonial, Mexican, and U.S. periods.

Ancestors of the residents of San Ildefonso came from the ancient community of Mesa Verde by way of the communities at Frijoles Canyon (Bandelier National Monument). The present village began about the turn of the seventeenth century. As was the case with most of New Mexico's pueblos, the San Ildefonso Indians participated in the Pueblo Revolt.

From 1598 until Santa Fe was established, the Camino Real ran through San Ildefonso headed for San Juan Pueblo.

Santa Clara Pueblo

Era: 17th, 18th, and 19th Century

Significance: Santa Clara has remained an important pueblo throughout the colonial, Mexican, and U.S. periods.

Santa Clara Pueblo was constructed early in the fourteenth century. The Tewa name was K'hapoo ("where roses grow near the water"). The people are living descendants of the Puyé cliff dwellers. The cliff dwellers settled in the cliffs of the Pajarito Plateau late in the 12th century. The area was abandoned in the 1500s because of severe drought. The cliff dwellings are more than a mile long and one to three stories high. The house remains on the mesa top are believed to have contained more than 1,200 rooms.

San Gabriel

New Mexico NATIONAL HISTORIC LANDMARK Era: 17th, 18th, and 19th Century

San Gabriel was the site of the first or second Capitol of Spanish New Mexico. It was established when Juan de Oñate and his colonists moved out of neighboring San Juan Pueblo across the Río Grande and moved here, called by the Indians Yungue. The colonists renamed it San Gabriel as most of the Indians previously living there, moved into San Juan Pueblo. What the Spaniards did was remodel San Gabriel to their own taste and uses. Like other multistoried pueblos, Yungue had no doors or windows on the first floor. That was for protection during attacks. They climbed ladders to the upper levels and entered the ground floor by descending through holes in the roof.

In their remodeling, the colonists opened doors and windows in the lower level. Evidence of these changes was discovered in 1962 by Ellis and her students.

Digging also revealed the plan of the old plaza. In one of its corners were found tracks of two dogs that had run across the square after a rain.

Their deep footprints in the mud had dried and remained preserved for more than 350 years.

From the historical record, we know next to nothing of daily life in San Gabriel. It did have a cabildo, or Spanish- style town council. And it was also the capital of New Mexico, as mentioned in several documents of the period.

One thing not in doubt is that San Gabriel survived only a few years. Probably, Oñate soon realized that there was not enough farmland in the area to support both the Indians and the settlers.

Looking around, he chose a new spot, a dozen leagues to the south, as the location for a new capital. On a small river, the land was not occupied by any pueblo Indians.

San Juan Pueblo, Yunge-Yunge

New Mexico NATIONAL REGISTER

Era: 17th, 18th, and 19th Century

San Juan pueblo was existing in 1598 when Oñate came here and established the first capitol of Spanish New Mexico. First named San Juan Bautista, it became later known as San Juan de los Caballeros. In the last quarter of 1598, the Hispanic colonists temporarily moved into San Juan , alongside the Indians. Oñate was planning to build a Spanish Town, to be called San Francisco just south of the pueblo but difficulties caused him to abandon the idea. Instead, the colonists moved across the Río Grande to a smaller pueblo named Yungue, which he renamed San Gabriel. Most of the Indians vacated the village and took up new homes inside San Juan.

APPENDIX F HIGH-POTENTIAL ROUTE SEGMENTS

National Trails System Act, SEC. 12. [16USC1251] As used in this Act:

(2) The term "high-potential route segments" means those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.

Route Segments were identified by Mike Marshall in 1991. His text is used in these descriptions. Michael P. Marshall, <u>El Camino Real de Tierra Adentro</u>, <u>An Archeological Investigation</u>. Santa Fe: The 1990 New Mexico Historic Preservation Division Survey, 1991.

ROUTE SEGMENTS

A DESCRIPTION OF THE CAMINO REAL IN THE JORNADA DEL MUERTO

ROBLEDO STUDY AREA

Robledo Road LA 80068, Segment No. 1

This one kilometer long section of the Camino Real is located in the Radium Springs Arroyo. It is directly southwest of the Interstate Highway 25. The Camino Real, in this area, follows along the northern side of Radium Springs Arroyo. The trail is defined by a broad sandy swale, eight to ten meters wide and up to two meters in depth. The road is devoid of vegetation while mesquite appears in the surrounding area. This section of the trail is captured by a small arroyo approximately 200 meters southwest of Interstate Highway 25 (I- 25).

Robledo Road LA 80068, Segment No. 2

This 500 meters segment of the road crosses the upper drainage of Radium Springs Arroyo). A modern two track road joins the old Camino Real swale in this area. The road is defined by an obvious swale, eight meters wide and about one meter in depth. The edges of the roadbed are cut into the caliche substrate.

Robledo Road LA 80068, Segment No. 3

This 900 meter section of the Camino Real extends from the crossing of the Radium Springs Arroyo, across and down a low sandy ridge. A modern two- track road follows along a very wide swale in this area. The swale is 12 to 15 meters in width and up to 1.5 meters in depth.

SAN DIEGO STUDY AREA

The North-South Avenue (LA 80064).

A two kilometer section of the north-south avenue of the Camino Real was surveyed in the San Diego area. This section of the Camino Real is designated as site LA 80064, Segment proveniences Nos. 1 thru 4. The Camino Real runs parallel to I-25 in the area directly north of the present U.S. immigration checkpoint and east of a small rest stop. The survey area extends from

the Ti9S-T2oS fence line near "South Tank," north two kilometers to the area of an empheral playa. The Camino Real, in this area, is well preserved and easily defined in the aerial imagery.

San Diego North-South, Road Segment No. 1

This segment of the Camino Real extends across the desert grassland plain, in the area of South Tank, for a distance of 600 meters north of the T19S-T20S fence line. The trail is defined by a swale that is 6 to 8 meters in width. This swale has a sandy base which is devoid of vegetation, but is fringed by dense growths of mesquite and yucca. The trail is best defined in this area by the absence of vegetation. In some areas, the trail has captured runoff and is a shallow sand-filled arroyo.

San Diego North-South, Road Segment No. 2

This section of the Camino Real extends 500 meters south from the South Fork or south river- side avenue. The South Fork avenue branches northwest from the North- South road and leads by way of the Paraje San Diego encampment (San Diego Site No. 1, LA 6346) to the escarpment edge (north of Detroit Tank), and down to the river.

The road extending 500 meters south from the South Fork junction is a shallow welldefined swale 10 meters in width. Here the road passes between a mesquite grassland and a creosote community. In some areas, the trail is defined by a band of mesquite, while in others it is devoid of vegetation, but fringed by creosote.

San Diego North-south, Road Segment No. 3

Here, the Camino Real passes along the east side of an ephemeral pond or playa. This pond area supports large mesquites, which were no doubt a firewood source. The road in the area of this playa is defined by a wide and shallow swale as well as a low and somewhat scattered band of mesquite.

San Diego North-South, Road Segment No. 4

A section of the Camino Real, 200 meters in length, was examined in the area north of the playa. The trail is a well-defined swale 10 meters wide with a narrow sandy base. In some areas, it supports growths of tall grass. In other areas, exposed carbonate soils form a firm road base compared to adjacent dunes.

THE SAN DIEGO SOUTH FORK ROAD (LA 80065)

South Fork Road Segment No. 1

This section of the South Fork road extends from the actual South Fork intersection of the north-south roadway, 600 meters to the north-west. In this area, the road is defined by a swale, 10 to 15 meters wide, which supports growths of dense grass and mesquite in a plain which is populated by scattered mesquite and creosote. The trail, in some areas, has the appearance of a wide and shallow drainage. There is also a thin patina of organic material in the road depression which has accumulated by runoff catchment. This patina of grey organic matter constrasts to the bare reddish clay on the adjacent plain.

South Fork, Road Segment No. 2

This section of the South Fork road extends from an angle change at the north end of road segment No. 1, northwest 300 meters to the I-25 crossing. This section of the trail, which crosses a creosote flat, is defined by a deep swale (up to 1.0 m below surrounding terrain), 6 to 8 meters in width. A road cut drainage outlet has been made into the swale from the dirt road which parallels I-25 to the east.

South Fork, Road Segment No. 3

This section of the San Diego South Fork road extends from I-25 on the south, 800 meters

northwest to the Río Grande valley escarpment edge (Selden Canyon Quadrangle). The road in this area is a well- defined swale, 10 to 15 meters wide. The road is defined as a wide shallow swale and linear void of vegetation in a flat creosote plain. This road segment parallels a modern gravel road that is 100 meters to the east and the Río Grande valley escarpment, 50 meters to the west. Both the South Fork and the modern gravel road join at an arroyo crossing on the escarpment edge which is the north end of road segment No. 3.

South Fork, Road Segment No. 4

This section 750 meter section of the San Diego South Fork road extends from the arroyo crossing on the Río Grande escarpment edge (ie. north end of segment No. 3) northwest to Detroit Tank. The trail, over most of this section, is defined by a 10 meter wide path or shallow swale. It is best defined in this area by vegetative differentiation. The native creosote of the area has failed to re-vegetate the trail which, instead, is a linear corridor of snakeweed. The trailway as it approaches the escarpment arroyo has been captured by a lateral drainage and is a deep narrow swale with a sandy floor.

South Fork, Road Segment No. 5

This segment of the South Fork Camino Real extends from the area of Detroit Tank, one kilometer west- northwest to the escarpment edge and road descent into the Río Grande valley (Thorn Well Quadrangle). This section of the road is not so obvious as road segments I through 4. The trail in this area is defined by a narrow 5 to 6 meter wide swale which crosses a area of low stablized dunes. The trail is best defined as a linear void in the creosote. In some areas, the trail is a narrow and deep track (50 cm in depth), while in others it is almost obscured by drifting sands. The narrow and poor definition of trail segment No. 5 is probably due to its primary use as a stock trail rather than a wagon road. This section of the South Fork road approaches and descends the escarpment. It is known historically that stock were unhitched from the carts and wagons and were taken down this road to water at the river.

The actual escarpment edge at the northwest end of road segment No. 5 is a two meter high bluff of Carbonate strata, below which is a steep slope. There is a cut in the bluff edge where the trail descends. This cut is 4 meters wide and does not appear to have been developed or constructed. This is one of the few areas where descent off the escarpment is possible. The trail descent is of such an incline as to prevent normal passage by wagons. This is consistent with the historic use of this section of the trail as a stock avenue.

THE RINCON ARROYO STUDY AREA "PARAJE EL PERRILLO"

Rincon Arroyo Road Segment No. 1

This 400 meter section of the trail extends across the benchland, 600 meters to 1.0 kilometers north of the Rincon Arroyo windmill (Alivio Map). The north end of the segment is an eastern lateral arroyo to Barbee Wash. Here, the Camino Real is defined by a shallow, 4 to 6 meter wide, swale. The trail is best recognized by the relative absence of creosote brush, scattered artifacts and battered limestone cobbles in the roadbed. The road swale is captured and incised by occasional small arroyos which cross the benchland. On the north end of the segment, the road enters a rather large lateral arroyo. There is no evidence of developed rampway construction at this crossing, but the swales, as they enter the wash, are well-defined and cut by erosion.

Rincon Arroyo Road Segment No. 2

This 350 meter section of the Camino Real extends across the east benchland of Barbee Draw north from the Rincon Arroyo windmill. The trail in this area is difficult to discern from ground observation, but it is defined by occasional shallow swales and the absence of creosote brush.

Rincon Arroyo Road Segment No. 3

This section of the Camino Real extends 200 meters south from the windmill to the Rincon Arroyo. There is a swale, 6 to 8 meters in width, visible where the road enters the north side of the arroyo. The lower slope and floor of the arroyo is quite sandy.

THE POINT OF ROCKS STUDY AREA

THE POINT OF ROCKS ROAD SEGMENTS-LA: 80059

Point of Rocks Road Segment No. 1

A 500 meter long section of the Camino Real was inspected in the Cerro Bolon area. It stretches from 300 to 800 meters north of the Slerra- Dona Ana county line. The road in this area crosses along the eastern margin of the Barbee Wash floodplain and the western edge of the creosote covered alluvial slopes. The condition of the trail in this area is poor. Sections of the trail have been inundated by the floodplain. In other areas, it has been covered by alluvium from the west slope erosion. The area is now overgrown with grass and scattered mesquite and the trail is difficult to discern. Braided cattle paths also obscure the trail.

Point of Rocks Road Segment No. 2.

This section of the Camino Real is a 600 meter long section which extends along the base of the Point of Rocks ridge escarpment. The road passes directly below the rocky outcrops of the ridge and alternately along the edge of the Barbee Wash floodplain and the west alluvial slopes. Most of the trail in this area is obscured by alluviation. Much of the road segment in the floodplain is an erosional channel, 6 to 8 meters wide and one to two meters in depth, which supports dense growths of grass and mesquite. A double roadbed swale, each four meters wide, was seen on a shallow arroyo crossing 50 meters north of the southernmost rock outcrop. A faint

roadway swale was also seen in two areas where the trail crosses alluvial slopes.

Point of Rocks Road Segment No. 3

A section of the Camino Real, 300 meters in length, was examined directly north of the Point of Rocks escarpment in the area of the Upside Down Tank. The trail in this area is entirely within the Barbee Wash floodplain and is defined by a re-vegetated arroyo.

JORNADA DEL MUERTO YOST DRAW STUDY AREA

Yost Road LA 80070, Road Segment No. 1

This southernmost segment of the Camino Real in the Yost Draw study area is located on an elevated plain above and south of the Yost Draw escarpment. The trail in this area is well defined on the aerial imagery by a sharp lineation. The level gravel-paved surface of the plain is very stable and the road is well preserved. The 200 meter section of the trail as it approaches the escarpment from the south, is defined by a shallow swale, 10 meters in width, which is mostly devoid of vegetation. This contrasts to the vigorous growths of creosote and tar brush adjacent to the trail. The trail in this area is best characterized by the absence of vegetation. Further south on the elevated plain, the road swale is narrower and deeper (5 meters wide and up to 50cm in depth). In this section, due to the capture of runoff water, vegetation is dense and consists of grasses and mesquite, in contrast to the adjacent creosote.

Yost Road LA 80070, Road Segment No. 2

In this area, approximately 400 meters north of the Yost escarpment, the trail passes over a saddle between two low hills. The trail in this area is defined by a conspicuous swale, five to seven meters in width, on an exposed pebblepaved surface. This provenience area is also the location of an artifact concentration.

Yost Road LA 80070, Road Segment No. 3

The Provenience No. 3 segment is located in the wide bottomlands south of the Yost Arroyo. This area is somewhat alluviated and definition of the trailway is discontinuous. The trail, in some areas, is defined by a shallow swale and in others by the absence of vegetation. In some areas, there is an open path through the sparse vegetation of mesquite, tar brush, grasses and crucifixion thorn.

Yost Road LA 80070, Road Segment No. 4

In this area, the trail enters the alluviated low-lands immediately south of Yost Draw Arroyo. Here, the roadway veers 200 meters to the west to pass around the eroded headlands of entrenched tributary arroyos to Yost Draw. Most of these entrenched arroyos have advanced to the east and bisected the trail. The trail is poorly defined In the alluviated red clay bottomlands of Yost Draw. A discontinuous alignment of mesquite can be seen in the aerial imagery, but the trailway path on the ground is not visible. No artifacts were observed.

The Yost Draw Crossing LA: 800544

The Camino Real crossing of Yost Draw Arroyo was developed by the construction of earth ramps down the upper embankments. These ramps were excavated into the walls of the upper clay embankments on both the north and south sides of the arroyo. Both ramps are four meters in width and provide a road grade to the cobble- strewn arroyo floor. The ramps are 20 and 30 meters in length and provide an even grade to the arroyo floor. Some cobble stones were imported to the south ramp to provide a solid base for the clay roadbed. An exposure of bedrock appears at the base of the north ramp which provides a solid base for the ascent. This bedrock exposure is worn in the area of the roadbed. A low mound of soil and gravel on

the north embankment summit, in the roadbed, appears to be backfill removed during the north ramp construction. This suggests that the ramp was constructed by use of a "Fresno" (a stock drawn scoop).

Yost Road LA 80070, Road Segment No. 5

This is a 500 meter section of the Camino Real which extends north of the Yost Draw lowlands up slope to an east- west fence line. The trailway on the slope is defined by a linear arroyo, 5 to 7 meters in width. It is eroded to one meter in depth. Where the trail approaches the alluviated lowlands it is obscured. As the trail approaches the summit of the slope, it is defined by a conspicuous depression and a line of large mesquites. The trail crosses the east- west fence line just west of an old gate.

Yost Road LA 80070, Road Segment No. 6

This 600 meter section of the Camino Real extends across an open upland plain between the slopes north of Yost Draw and south of a west tributary of Aleman Wash. This section of the trail is defined by a conspicuous depression, 6 meters across and 50 cms in depth. This swale acts as a runoff catchment which has been enhanced by the construction of small earth dams across the swale. The water catchment in the swale has resulted in the growth of tall mesquite and dense grasses in an area of low growing mesquite and scattered grass. Occasional saltbush growths appear along the trail margin, but not within the swale. Sections of the road, as it crosses the gravel-paved plain, have low earth and gravel berms. A few limestone cobbles in this area exhibit battering marks from the passage of stock and vehicles.

Yost Road LA 80070, Road Segment No. 7

This 300 meter section of the Camino Real passes down a series of low hills which form the south slopes of an eastern tributary of Aleman Wash. This section of road is defined in the aerial imagery as a very clean hard line. This is

because the road is devoid of vegetation and consists of a well defined swale in the gravel benchland. Here, the road is characterized by a shallow swale, four to five meters in width, with occasional roadside berms. The road forms an open path in an area of otherwise densely covered creosote. Much of the area is gravel and cobble- strewn and many of the small arroyo crossings are rather rough. Many of the limestone cobbles in the roadbed exhibit battering caused by the passage of livestock and vehicles.

Yost Road LA 80070, Road Segment No. 8

In this 200 meters section of the Camino Real, the trail crosses the grass covered lowlands of a western tributary of Aleman Draw. Here, the trail veers to the west to pass around the entrenched headlands of small arroyos. Definition of the trail in these lowlands is obscured but may be discontinuously traced by a linear growth of mesquite.

Yost Road LA 80070, Road Segment No. 9

This segment of the Camino Real is an approximate 600 meter section which crosses the plain between the Aleman Draw and an eastern tributary to Aleman Draw. On the north slope of the tributary, the trail is well defined by an eroded linear swale which is 10 meters in width and 50cm to 1.0m in depth. In one area, a 100 meter long double or parallel road segment is present. The road is also closed by small earthen dams that were constructed to control erosion and hold runoff water. The trail in the area above the cross dams is defined by a tall linear growth of mesquite.

Yost Road LA 80070, Road Segment No. 10

This section of the Camino Real is the 900 meter south approach to Aleman Wash. The trail, as it passes over the south plain to Aleman Ranch, is defined by a subtle and discontinuous swale and a linear scatter of artifacts. There is a definite increase in the density of trail associated artifacts as the road approaches the Aleman Wash.

JORNADA LAKE STUDY AREA DESCRIPTION OF THE JORNADA LAKE ROAD

Jornada Lake LA 71819, Road Segment No. 1

Road segment No. 1 is a 400 meter section of the Camino Real which crosses an open grassland that divides the south playa of Engle Lake and an eastern tributary of Jornada Draw. The trail in this area is defined by a wide shallow swale, 12 to 20 meters in width and 50cm in maximum depth. The swale area supports growths of mesquite which form a linear path across the otherwise grassland plain. In some areas the trail swale is difficult to trace, but the path of the trail is well defined by a linear growth of mesquite. In some areas the road is bare, in contrast to the adjacent grassland. Runoff catchment in the road swale is evident by moisture cracks and a patina of organic matter.

Jornada Lake LA 71919, Road Segment No. 2

Provenience No. 2 is an approximate 200 meter section of the trail which extends down the north slope of an eastern tributary drainage to Jornada Draw. In this area, shallow arroyos have formed along the path of the road. In one area, where the trail crosses a section of hard caliche soil, there are two distinct and parallel swales, each about six meters wide and separated by a berm five meters in width. The eroded swales vary from 50cm to 1.0 m in depth. The presence of a double road track here is probably due to the erosion and abandonment of the older road and to the passage of vehicles on the bypass avenue. The path of the Camino Real as it enters the lowlands of the eastern tributary drainage is obscured by alluviation. It is in this area that the trail crosses the railroad tracks and the county road.

Jornada Lake LA 71818, Road Segment No. 3

Provenience No. 3 is a one kilometer segment of the trail which extends southeast from the

Aoi3 county road crossing. The trail is not especially visible on the aerial imagery, since only occasional mesquites grow along the path. A rather obvious road swale, however, was observed in the survey. This swale is six to eight meters in width and 25cm to 50cm. in depth. The compact sandy sediments along this section of the trail appear to be rather stable, hence the good preservation of the road.

Jornada Lake LA 71818, Road Segment No. 4

This segment of the trail extends across an open plain directly south of an east- west two track road. This open plain has a sand and carbonate pebbled substrate. Definition of the trail in this area is very faint and was traced by the projection of the alignments visible on the aerial photograph north and south of the area.

Jornada Lake LA 71818, Road Segment No. 5

This 600 meter segment of the Camino Real is defined by a vegetative lineation in the aerial imagery. This segment crosses an open grassland plain with low stabilized dune hummocks. A well defined swale is present which is six meters in width and 25cm in depth. This swale acts as a catchment area and fosters a vigorous growth of mesquite and grasses. It is the linear growth of mesquite that defines the aerial alignment. In one bottomland crossing, the trail is defined by a linear path of tall grass. In another short segment, the trail has been captured by an arroyo.

Jornada Lake LA 71818, Road Segment No. 6

In this 100 meter section, along the north side of a dune field, the Camino Real road has a positive topographic expression. A linear mound about 6-8 meters wide and up to one meter in elevation is stabilized by mesquite and grasses. The area adjacent to the mound is deflated by wind action. Apparently the trail area was once a swale stabilized by vegetation. As such, it resisted subsequent aeolian deflation.

Jornada Lake LA 71818, Road Segment No. 7

This 600 meter section of the Camino Real enters a wind swept dune field. The area consists of a series of tall stabilized dune hummocks interconnected by deflated blow- outs. The road alignment is not visible on the aerial imagery nor could roadway definition be made on the ground. The projected alignment of the trail was inspected. The road apparently crossed the dune field through a maze of interconnected blow- outs.

Jornada Lake LA 71818, Road Segment No. 8

This one kilometer segment of the Camino Real extends north of Jornada Draw arroyo. Definition of the road in this area is generally poor. Here the road crosses an open plain and extends north into a dune field. More mesquite is present in the road than in the surrounding terrain, but this is difficult to discern from ground observation. A slight road swale, occasional battered limestone cobbles define the trail corridor.

Jornada Lake LA 71818, Road Segment No. 9

This 500 meter section of the Camino Real extends from Jornada Draw arroyo on the north to a modern east- west road on the south. This section of the Camino Real is defined in the aerial imagery as a vegetative lineation. The trail is difficult to trace on the ground and in some areas, is defined by a wide grassy area framed by mesquite. No road swale was observed along this section.

Jornada Lake LA 71818, Road Segment No. 10

This 400 meter section of the Camino Real extends from an east- west road on the north to Hackberry Draw arroyo on the south. The road is defined in the aerial photography as a lineation of mesquite. Ground survey revealed only a subtle and shallow swale crossing an area of low dunes.

Jornada Lake LA 71818, Road Segment No. 11

This 300 meter segment of the Camino Real extends from Hackberry Draw arroyo on the north, south into a dune field. This section of the trail is defined in the aerial imagery as a distinct line of vegetation. Ground survey revealed a shallow swale 10 to 15 meters in width. There is a line of mesquite in the road with yuccas lining the trail edge. The Hackberry Draw bottomlands and arroyo would have proved difficult for wagon traffic during the rainy season. It is today a wide grassy floodplain with an incised arroyo channel.

THE ENGLE LAKE NORTH AND SOUTH STUDY AREAS JORNADA DEL MUERTO

THE ENGLE LAKE NORTH STUDY AREA

Engle Lake North Road LA 80067, Segment No. 1

This one kilometer segment of the Camino Real extends north from the north Engle Lake playa to the area of Road Segment No. 2. This section of the trail is defined in the aerial imagery as a linear concentration of mesquite. Here, the road crosses a sandy grassland with occasional mesquite hummocks. The road is visible as a shallow and discontinuous swale 4 to 6 meters wide. Much of the roadbed is filled with sand and is re-vegetated. The linear pattern of mesquite, conspicuous in the aerial imagery, is difficult to discern on the ground. A light scatter of artifacts was found along the trail. The road is entrenched on the slope as it approaches the north Engle Lake playa for a distance of about 200 meters. The margin of the playa is very alluviated and the road around the playa is buried in silt.

Engle Lake North Road LA 80067, Segment No. 2 (The Cross Roads)

The Engle Lake North No. 2 road segment is located 2.5 km northwest of Engle, New Mexico and 1.3 km. north of the north Engle playa. Here, the Camino Real trail crosses an old road leading northwest from Engle Station to an unknown (possible Fort McRae) destination.

Both of the roads at this crossing are very eroded and are defined by linear entrenchments which are very conspicuous in the aerial imagery. Both roadbed arroyos are 10 to 12 meters in width and one to two meters in depth. A series of large earthen check dams have been constructed, at interval, across both roads. A check dam has been constructed at the actual cross roads. This eroded area extends along a 1.5 kilometer section of the Camino Real north of the Cross Roads. This area is an open grassland with a white clay-caliche soil.

Engle Lake Road North LA 80067, Segment No. 3

This 700 meter section of the Camino Real trail is deeply entrenched and is, today, a linear arroyo across which have been constructed arroyo control check dams. The trail has been eroded to a depth of one to two meters. It is 8 to 10 meters in width, with lateral eroded slopes on either side up to 10 meters wide. The trail is furthermore defined by a linear growth of mesquite and yucca in an otherwise grassland plain. Occasional plated clay sediments on the road surface are exposed along the upper edge of the entrenchment.

Engle Lake North Road LA 80067, Segment No. 4

This 300 meter section of the Camino Real appears directly south of a vineyard which is located four kilometers north of State Highway 52. The road in this area is a shallow swale, 12 to 15 meters in width, which forms a shallow course leading south toward the entrenched section of road segment No. 3. Occasional large

mesquite and yuccas, which are not present on the adjacent grassland plain, grow in the road.

Engle Lake North Road LA 80067, Segment No. 5

This section of the Camino Real is located approximately four kilometers north of the north Laguna Del Muerto playa. The segment extends from the north boundary of a vineyard, 550 meters northwest, to the vineyard road. The Camino Real in this area is defined by a distinct swale which fosters a linear growth of mesquite and yucca. The trail is 6 meters in width and has wide lateral stopes 8 to 10 meters in width.

Engle Lake North Road LA 80067, Segment No. 6

This 500 meter segment of the Camino Real trail is located in the area of a vineyard warehouse, approximately 5.5 kilometers northwest of Engle, New Mexico. The segment extends from the north-south road to the vineyard warehouse, east of the warehouse to an eastwest two track road. The Camino Real in this area is defined by a single swale, 10 meters in width and 50cm in depth. The trail is well defined by a dense linear growth of tall yucca and mesquite in an open grassland plain. Water catchment in the trail promotes the growth of desert holy which is otherwise absent from the adjacent grassland.

Enqle Lake North Road LA 80067, Segment No. 7

This 700 meter section of the Camino Real is located in the area approximately 1.5 kilometers west of Cedar Lake. The segment extends from an east- west track north of a green vineyard warehouse to a low hill top and Engle Lake locality No. 2. Part of the trail crosses the east slope of a low hill and is defined by a shallow swale, 9 to 10 meters in width, which is cut into the slope. Carbonate gravels are exposed in this road cut and in a narrow 1.0 m wide berm on the opposite road bank. The road is devoid of

the mesquite and yucca vegetation which is scattered in the adjacent plain. The relative absence of vegetation on the trail in this area is apparently due to the exposed carbonate substrate.

Engle Lake North Road LA 80067, Segment No. 8

This 500 meter section of the Camino Real trail is located in an open grassland plain where the road begins to trend east toward the railroad grade. The road in this area is defined by a shallow swale, 8 to 10 meters in width. In some areas, carbonate gravels are exposed on the upper west road slope and in a narrow berm on the west. Occasional battered limestone cobbles were observed in the road. These cobbles were battered as a result of impact by stock and wagon traffic. There is some differentiation of the trail avenue by mesquite growths.

Engle Lake North Road LA 80067, Segment No. 9

This 600 meter section of the Camino Real is located in an open grassland plain where the road parallels (200 meters to the west) the railroad. The road in this area is difficult to follow. Where it is visible, it is defined by a shallow swale. The soil is sandy.

ENGLE LAKE SOUTH SURVEY AREA

ENGLE LAKE SOUTH ROAD SEGMENTS, LA 80066

Engle Lake South Playa, Road Sequent No. 1

This 700 meter long road segment is located west of "Engle Lake", which is the south playa of the Laguna Del Muerto. This segment is 1.6 kilometers southwest of Engle, New Mexico. The area north of this segment has been destroyed by a vineyard for a distance of one

kilometer north to State Highway 52.

The Camino Real in this provenience crosses an exposed and eroded plain and is poorly defined. This area is a wide zone of exposed soils, 50 to 100 meters in width. In some areas, there is a wide grassy swale, 20 to 40 meters, which is the probable road area.

Engle Lake South Playa, Road Segment No. 2

This 650 meter section of the Camino Real represents the southern approach to the south playa of the Laguna del Muerto. The trail proceeds down the north slope of a low hill to the Engle Lake arroyo drainage. The trail in this area is vegetatively differentiated by a dense band of mesquite growing in the trail in an otherwise open grassland plain. This linear band of mesquite can be seen crossing the hill from State Highway 52 to the south. The trail in this area is defined by a swale, 12 to 15 meters in width and 50cm in depth. A few battered limestone cobbles were observed in the road. Near the summit of the hill, exposed Carbonate soils appear along the edge of the road.

Engle Lake South Playa, Road Segment No. 3

This one kilometer section of the Camino Real crosses the hill crest and open grassland plain south of the Engle Lake Playa. This road segment on the south joins with the Provenience No. 1 segment of the Jornada Lake study area. The south end of the segment is the south boundary of the Armendaris Land Grant. There is a scattered band of mesquite visible along the trail in the aerial imagery, however the trail is best defined, from ground observation, as a wide shallow swale. The road is 10 to 12 meters in width and 25 to 50cm in depth. Carbonate gravels are exposed in road, while the adjacent plain is covered by grasses.

JORNADA DEL MUERTO DOCKER POND STUDY AREA

Crocker Pond Road LA 80069, Segment No. 1

This southernmost road segment of the Crocker Pond study area is a 100 meter section which ascends a low ridge southwest of the south Crocker playa. Here, the road is cut into the eastern slope of the ridge, exposing a path of carbonate gravels. The trail is 8 meters in width and 50cm to 1.0 m in depth.

Crocker Pond Road LA 80069, Segment No. 2

A 200 meter segment of the Camino Real which passes west of the south Crocker playa is designated as Road Segment No. 2. This road section is crossed by numerous small arroyos leading down to the playa and is eroded. The trail is poorly defined and is recognized only on the basis of concentrated vegetation (mostly grass).

Crocker Pond Road LA 80069, Segment No. 3

This section of the Camino Real extends from the crossing of the powerline at power pole No. 654, approximately 300 meters to the southwest. The trail in this area is defined by a well-defined swale six meters wide and 50cm in depth. Carbonate pebbles are exposed along the edges of the road bed.

Crocker Pond Road LA 80069, Segment No. 4

This 400 meter segment of the Camino Real is located west of the north Crocker playa and extends from the power line north to an eastwest road crossing. The trail is defined by a swale, eight meters wide and 25cm to 50cm in depth, which crosses an open sandy area. There is no conspicuous vegetative differentiation of the trail in this area.

Crocker Pond Road LA 80069, Segment No. 5

This 300 meter long segment of the Camino Real crosses an open grassland plain. It is poorly defined and consists of a very shallow swale eight to ten meters wide. This section of the trail is somewhat difficult to follow from ground observation. A battered limestone cobble, from stock traffic, was observed in the trail. A possible southwest branch road may join the Camino Real in this area. Aerial imagery of this section should be consulted.

Crocker Pond Road LA 80069, Segment No. 6

This 400 meter segment of the Camino Real extends north across the summit of a low hill in an open grassland and ends on the upper edge slope of the hill. From this hill the first sight north to Black Hill and the Red Lake drainage system can be made. This is also the first view north along the Camino of San Pascualito and San Mateo mountains. It was from this location that travelers coming up from the south first caught sight of New Mexico and the Piro Province. The trees of Tucson Springs (Ojo de Anaya) can also been seen on the distant plains to the northeast.

The trail in this area is defined by a wide (15 to 17m) shallow swale. Scattered mesquite appears along either side of the trail while grasses and snakeweed grow in the road.

Crocker Pond Road LA 80069, Segment No. 7

This segment of the Camino Real extends for a distance of 300 meters down the north slope of a hill and into a dune area. It ends on the north at the railroad tracks. The road is defined by an eroded path ten meters in width. The road on the upper hill slope is defined by an eroded swale which is cut into the Carbonate gravels. On the lower hill slope, the road enters an area of low dunes and is defined as a wide sandy arrroyo.

A DESCRIPTION OF THE CAMINO REAL IN THE BOSQUE DEL APACHE

THE BOSQUE DEL APACHE

Description of The Bosque Del Apache Road

Road survey in the Bosque Del Apache study area was restricted to those alignments visible in the USFWS infrared imagery. A total of 13 road segments were investigated and are described in the following the notes. All of the road segments that were identified in the Bosque Del Apache study area are designated as components of the LA 80057 road complex.

The North Boundary Provenience, Bosque Road Segment No. 1

An old road alignment is visible on the aerial imagery approximately 600 meters south of the north Bosque boundary and 50 to 100 meters east of the present east road. This alignment extends for a distance of 300 meters and joins the present east road on the north and an the south. The alignment is defined in the aerial imagery as a sharp, narrow and sinuous lineation. The road path on the ground is extremely subtle, despite the excellent definition in the aerial imagery. The alignment is located in a dune environment with large mesquite hummocks and blow- outs. The dunes have, in many areas, reclaimed the road. In some locations, there is an absence of large brush in the track while large mesquite and saltbrush appear marginal to the alignment. It is apparently this bare vegetative cover which gives the alignment such excellent definition in the aerial imagery. No artifacts were observed.

The New Hacksaw Well Alignments

Two old road alignments are located in the New Hacksaw Well area, approximately 1.6 kilometers south of the north Bosque Del Apache boundary. Both alignments are obviously older paths for the present east side road. One alignment is located north of the well (Bosque Road Segment No. 2) and east of the present road. It is four meters in width and extends for a north-south distance of 500 meters. This road segment is located on the upper bench slope and edge, about 50 meters east of the existing road.

Another alignment (Bosque Road Segment No. 3) is located south of Hacksaw Well and west of the present road. This segment extends for a distance of 200 meters. This road is a four meter wide depression which is characterized mostly by the absence of vegetation. Saltbrush lines path, but is not present in the road. No artifacts were found along either of the New Hacksaw Well road segments.

The Army Well Alignments

Two well- defined parallel and linear alignments cut across a bench point for approximately one kilometer in the area of Army Well (San Antonio SE 7.5 Minute Quadrangle). The present east bank road follows the bench point along the edge of the river valley. The older alignment cuts across the point through an area of low dunes. The alignments are parallel and 75 meters apart. The west alignment is defined by a conspicuous swale which is, in many areas, devoid of vegetation. This path appears to be of recent 20th century vintage. The east path, although very well defined in the aerial imagery, has been re-stabilized and is defined by a subtle vegetative alignment. The east path probably has some antiquity and was apparently last used during the 19th century.

The east parallel road (Bosque Road Segment No. 4) may be a section of the Camino Real Trail. The segment crosses a stabilized dune field and is filled with sand. It is substantially re-vegetated. Where a road depression is discernable, it is eight meters in width. The alignment visible on the infra-red imagery is primarily the result of vegetative differentiation. This differentiation is subtle and is defined by dense growths of Dalea scoparia in the roadbed. Also, the saltbrush and the tall vegetation that is along the roadside is not present in the road. No arti-

facts were found along this sandy section of road, except for a single hole- in- top can near the north end.

The west parallel road (Bosque Road Segment No. 5) appears to be a 20th century automobile road. This road is defined by a conspicuous swale which is four to five meters wide and 50cm to l.om in depth. The road is defined in many areas by the total absence of vegetation. Artifacts observed along the alignment include; narrow mouth oil cans, beer bottle glass, white glass and beer or soda cans opened with a can opener. This alignment is an automobile road which was apparently used up to the 1940's and 1950's.

The Bosque Crossing Alignments

A group of old roadbed alignments were inspected along and adjacent to the present Bosque west road in the area west of Antelope Well. These alignments appear at the seasonal river crossing to the west bank of the Bosque Del Apache, hence the name Bosque Crossing. Four road provenience alignments were examined in this area, two of which are along the present roadbed.

The Bosque Road Segment No. 6 location is defined by three parallel roadbeds. The eastern alignment is also the present road. There are two older road swales in this area parallel and west of the present road. Each of the roads are defined swales four meters in width and 50cm in depth. Three meter wide berms separate the roadbeds. Large Tornillo-Screw Bean trees, 3 to 6 meters in height, are present in both of the western alignments, suggesting that they were abandoned some time ago. There is a separate linear growth of tamarisk along the swales in the south alignment area. The parallel road alignments in this area are preserved in the compact clay-loam of the valley edge floor. No artifacts were found. These parallel alignments indicate that the old east side road was in the area of the present road. It is probable that these alignments are of least Territorial affinity and that they represents sections of the Camino Real Trail.

The provenience No. 7 alignment is located in the south Bosque Crossing area and extends for a distance of approximately one kilometer. The alignment is defined by a fine clean lineation in the aerial imagery. It crosses the existing roadway and enters and crosses a section of the floodplain-tamarisk bosque. The alignment is defined on the ground surface by the relative absence of sage vegetation and by a linear path of snakeweed. A subtle swale is visible, especially adjacent to the floodplain crossing, which is four meters in width. The alignment crosses a small peninsula of the floodplain for a distance of 200 meters. It is visible in aerial imagery and on the ground in the tamarisk and cottonwood bosque. The only artifact found along the alignment is a yellow crock fragment which was seen near the north end of the alignment.

The provenience No. 8 alignment in the Bosque Crossing area is located within the existing east- side road. The segment is directly south of the eastern junction track to Antelope Well. For approximately 300 meters, the existing road is very entrenched and appears to have considerable antiquity. Here, the road is a trough two meters in depth and four meters in width. The depth of this road indicates that this pathway has been used for a considerable period of time.

The provenience No. 9 Bosque road segment exists parallel to and east of the present road. It extends for a distance of approximately one kilometer. The alignment is well defined in some areas by the absence of sage, while other areas the alignment is re-vegetated. In some areas, a shallow swale four meters in width is visible. No artifacts were found along this segment.

The Low Mountain

This 200 meters long lineation (Bosque Road Segment No. 10) is located parallel and east of the existing roadbed. It represents a braided segment of the existing road which is located in an area of dunes. The road is a well defined, swale four meters in width, which is filled with sand. No artifacts were found. This is an older

avenue for the present road. The Camino Real in this area appears to have been located along the avenue of the present road.

The San Pascual Pueblo Alignments

A discontinuous alignment of three old roadbed proveniences, visible in the area of San Pascual Pueblo (LA 487), was surveyed. In this area, an old roadbed exists to the east of and incorporates sections of the existing road. This road also enters the area of San Pascual Pueblo and passes its eastern roomblocks.

The Bosque Road Segment No. II alignment is located in an area of stabilized dunes and blowouts north of the San Pascual Pueblo. This alignment, visible in the aerial imagery, extends for a distance of 300 meters. The alignment is disturbed on the north by a canal construction. The roadbed is defined by a shallow four meter wide swale which is bordered in some areas by two narrow roadside berms. In other areas, it is a six meter wide swale which passes between large mesquite hummocks. No artifacts were found.

The Bosque Road Segment No. 12 alignment is a well defined linear swale which is located in the area of San Pascual Pueblo. Here, the road passes on a north-south orientation in the plaza area between roomblocks one and two. The road is defined by a swale, 8 meters in width and 50cm to 1.0m in depth. This alignment is visible for a distance of 300 meters. On the south, it joins the present roadbed. On the north, it is captured by an arroyo extending directly below the pueblo.

The Bosque Road Segment No. 13 is a 350 meter alignment located south of San Pascual Pueblo. Near the north end of the alignment the road is cut by a deep arroyo, which suggests that the road has some antiquity. The road south of alignment is also invaded by a linear arroyo drainage. A late 19th- early 20th century homestead is present on the bench edge west of the alignment. South of the arroyo, the alignment is defined by subtle swale passing between a series of mesquite hummocks. The present road exists

to the east of the alignment and passes around and east of the arroyo head.

A DESCRIPTION OF THE CAMINO REAL IN SANTA FE-LA BAJADA

THE JUANA LOPEZ-SAN FELIPE ROAD

Juana Lopez-San Felipe Alternate of the Camino Real

The Juana Lopez- San Felipe Road is a major alternate of the Camino Real which extended from the area of La Cienega south to San Felipe Pueblo. This avenue was the major bypass of the Los Bocas Canyon and La Bajada escarpment roads. The road left La Cienega and passed south, across the western plains of the Los Cerrillos range, to the edge of the La Bajada escarpment. It then descended the La Bajada escarpment, crossed the Galisteo drainage, and proceeded southwest over the plains to San Felipe.

This alternate avenue of the Camino Real was probably developed sometime during the late Colonial or Mexican period. It may have been opened by Santa Fe traders in order to bypass the rough wagon road through Las Bocas canyon. The road was well established by the time of the American invasion in 1846 and it was the route used by General Kearny and the American Army (1886 testimony of Miguel Naravis and Nazario Gonzales, Mesita de Juana Lopez Land Grant Papers). The road is indicated on the Abert and Peck 1846 map and on the H. Kern 1850 map. It is also marked on the Wheeler 1877 map which illustrates a telegraph line following the avenue. Sections of the road along the La Bajada descent and the Galisteo crossing were improved by the U.S. Corps of Topographical Engineers in 1857 and 1858.

The Juana Lopez-San Felipe road was probably abandoned when the La Bajada escarpment road, north of Santa Fe Canyon, was improved around 1903 or before. Survey along approximately 12 kilometers of the Juana Lopez road

has failed to reveal any signs that it was ever used by automobile traffic.

There is ample evidence of Territorial use along the Juana Lopez- San Felipe road, but there is no indication of Colonial period use. It should be noted, however, that evidence of Colonial utilization along other sections of the Camino Real is often very limited. The earliest use of the Juana Lopez- San Felipe road is as yet undetermined, but it was clearly a well established road by 1846. The road may have been first used for interstate wagon traffic during the Mexican Period by the Santa Fe traders.

The Cerro de la Cruz Study Area of the Juana Lopez Road

The Cerro de la Cruz road is a northern extension of the Juana Lopez study area. This section is the south approach and entrance to the La Cienega valley. Only a short section of this road, in the Cerro de La Cruz area, has been subject to survey. If additional surveys of alternate roads in the La Cienega area are completed they should be appended to this study area. In this study, a one kilometer section of the road on the plain west of Cerro de La Cruz was completed. There are three road segments identified in the study area from State Highway 22 north to its crossing with Interstate 25 at the La Cienega overpass- ex it.

This section of the Camino Real is well-defined in the aerial imagery. Entrenchment and re-vegetation of the road alignments in the 1935 imagery indicates that the road has considerable antiquity.

An eastern branch joins the road at the arroyo crossing northwest of Cerro de la Cruz. This east road probably led to the Galisteo Road and may have continued east to the Pecos Road and the Santa Fe Trail.

Cerro de la Cruz Road LA 80016, Segment No. 1

This section of the road extends for a distance of 500 meters across the grassland plain below and west of Cerro de la Cruz. The road, for a distance of 200 meters north of State Highway 22, consists of a well- defined swale, 10 meters in width and 50 cm in depth. It is vegetatively differentiated by growths of junipers in the road, two to three meters high. There is also a higher density of cholla in the roadbed. In the area 200 to 500 meters north of Highway 22, the road diverges into three parallel swales. These tracks are four to five meters wide and are separated by distinct berms two to three meters in width.

Cerro de la Cruz Road LA 80016, Segment No. 2

This section of Juana Lopez road is located at an arroyo crossing northwest of the Cerro de la Cruz. Three parallel roads cross the plain below Cerro de la Cruz and diverge into an eastern branch road and two alternate arroyo crossings. The branch road probably joins the old Santa Fe to Galisteo Road (identified as the Camino de Galisteo in the 1766 Urrutia Map), or it leads further east to the Pecos Road and the Santa Fe Trail. This eastern branch road has not been subject to survey. However, the entrenched and re-vegetated signature of the road on the SCS 1935 imagery suggests that it has considerable antiquity.

The arroyo crossing northwest of Cerro de la Cruz is deeply entrenched and steep banks now exist at the former road crossings. It is evident that this entrenchment began during the use of the road, as there is a bypass alternate. Erosion of the arroyo has, however, continued east and the alternate bypass is also now cut by deep embankments.

Cerro de La Cruz Road LA 80016, Segment No. 3

This 300 meter section of the Juana Lopez road leads northwest from the Cerro de la Cruz arroyo up, a ridge slope to the present area of

the La Cienega I- 25 Overpass. The lower section of the road is eroded and consists of a long linear arroyo. The road follows a narrow valley floor. Near the upper ridge crest, it is defined by a shallow swale with two narrow erosional channels. These channels were apparently cut into the tracks of the wagon road.

THE JUANA LOPEZ STUDY AREA

A four kilometer section of the Juana Lopez-San Felipe road was surveyed in the area parallel and east of Interstate Highway 25. The Camino Real, within the Juana Lopez study area, is a well defined avenue.

A total of 10 well defined road segments were identified in the archeological survey. This site appears to have been established in the late 19th century and was occupied only during the last stage of the Juana Lopez road use. The artifact assemblage from the site indicates a post railroad period occupation while the Juana Lopez road assemblage indicates an earlier Territorial Period use. The LA 80001 casa- corral is probably part of the La Bonanza community rather than the famous Pino's Ranch (ie. Pino's Ranch was a common rest stop along this section of the Camino Real).

The Juana Lopez road, as it crosses the plains west of the Cerrillos range and above the La Bajada escarpment, is a well- defined avenue that obviously saw considerable wagon road use. In many areas, it is defined by two, three and even four parallel swales, each 4 to 6 meters wide. As the road approaches drainage areas, it is usually a single wide path 15 to 23 meters in width. There is a road by- pass at the Juana Lopez arroyo crossing to avoid an entrenched section of the drainage. At the Arroyo Yupa crossing there is a cut and fill roadbed construction on the south approach.

Juana Lopez Road LA 80012, Segment No. 1

This section of the Camino Real is located on the north slope of Alamo Creek Arroyo. The segment is parallel to and 200 meters east of Interstate Highway 25. It extends from State Highway 22, southwest 700 meters, to the Alamo Creek. This road crosses an open grassland plain and is defined, over most of the section, by three parallel tracks. The road depressions vary in width from 4 to 6 meters and are 25 cm to 75 cm in depth. There is no obvious vegetative differentiation in this area. The road crosses the floor of Alamo Creek directly east of the Alamo Creek casa- corral site (LA:80001). The Alamo Creek casa- corral is a late 19th century settlement.

Juana Lopez Road LA 80012, Segment No. 2

This 300 meter section of the Camino Real extends up the south slope of Alamo Creek and across the grassland ridge between Arroyo Alamo and Arroyo Juana Lopez. The road on the ridge top between the arroyos is defined by a wide (12-15m) shallow swale. On the south slope leading into Alamo Arroyo, there are multiple swales over a path 20 meters in width.

Juana Lopez Road LA 80012, Segment No. 3

This section of the Camino Real is the 100 meter crossing of the Juana Lopez Arroyo. Crossing the Juana Lopez required an angle change in the Camino Real to avoid an entrenched section of the arroyo. Here, the road crosses the arroyo immediately east of a deep bedrock trough. The actual arroyo crossing is in a shallow sandy area and did not require roadway development. As the road approaches the Juana Lopez Arroyo it becomes a joined double swale. The main road is 6 meters across and eroded to 1.0 meter in depth. A parallel and contiguous upper road, apparently used after the erosion of the lower road, is 4 meters wide and 50 cm in depth.

Juana Lopez Road LA 80012, Segment No. 4

This segment of the Camino Real is a 350 meter section which extends across the grassland plain between the Juana Lopez and the Yupa Arroyo drainages. The road is defined by a wide (15 to 20 m) and shallow (25 cm) swale.

The trail, in this area, is without vegetative differentiation.

Juana Lopez Road LA 80012, Segment No. 5

Provenience No. 5 of the Mesita Juana Lopez road is a 150 meter segment which is located on the north slope of the Yupa Arroyo. In this area, the road makes a sharp western curve to provide a gentle grade to the Yupa Arroyo crossing. The road flanks an east- west trending ridge, cuts across the west end of the ridge slope and enters Yupa Arroyo. The road is defined by a single swale, 6 to 8 meters in width. A few cobble stones appear in the roadbed directly above and north of the arroyo. These cobble stones were apparently placed in the roadbed to provide a firm base for traffic ascending the north arroyo grade.

Juana Lopez Road LA 80012, Segment No. 6

This section of the Camino Real is a 100 meter segment of the road as it approaches and enters the south slope of Yupa Arroyo. As the road descends into Yupa Arroyo, it appears to have a cut bank and an earth filled roadbed. A deepcut arroyo, directly east of the road, may have been the former eroded roadbed. Examination of the exposed roadbed section in the adjacent arroyo revealed a clay- plated soil structure in the upper strata. This plated soil is the result of compaction caused by the passage of wagons and livestock on the road. Examination of the exposed banks nearby, but outside of the road, failed to reveal this plated soil structure.

Juana Lopez Road LA 80012, Segment No. 7

This section of the Camino Real trail extends for a distance of about 500 meters across a grassland plain south of Yupa Wash and north of an unnamed arroyo. The trail in this provenience crosses south into the Mesita Juana Lopez Land Grant. The Camino Real, south of this boundary, is defined by a wide (15 to 20 m) shallow swale. The trail to the north of the boundary crosses a gentle western slope.

Juana Lopez Road LA 80012, Segment No. 8 (The White Arroyo).

This 300 meter section of the Camino Real is defined by a group of three parallel and substantially eroded roadbeds. These roads lead down the north slope of a grassland plain into an unnamed arroyo. The roadbeds are 4 to 5 meters in width and are entrenched to a depth of 1.5 meters. The white soils exposed in the eroded roadbed are defined as three conspicuous white scars in the aerial imagery. Rock erosion control alignments have been placed across the upper south ends of these roads.

Juana Lopez Road LA 80012, Segment No. 9

This 500 meter section of the Camino Real extends across the open grassland plain of the Mesita Juana Lopez. The trail in this area is represented by four parallel road swales. Occasional juniper trees, two to three meters high, grow in the roads. The trail avenues range from 6 to 6 meters wide and are 50 cm to 1.0m in depth. These four parallel roads form a wide corrugated path, 100 meters in width

Juana Lopez Road LA 80012, Segment No. 10

This 500 meter section of the Camino Real extends across the plain northwest from the powerline crossing. The trail is defined by three parallel avenues which diverge into four avenues as they joins the Provenience No. 9 segment. The roads are 6 to 8 meters wide and 50 cm in depth. A branch road to the northeast diverges from the Camino Real in this area. This branch road joins the southeast alternate from the Yupa Wash Provenience No. 5- 6 crossing. This road may represent an alternate Camino Real avenue which avoids the eroded Provenience No. 8 area and which also joins the Bonanza Canyon mining- logging road.

THE GALISTEO NORTH STUDY AREA

Description of the Road in the Galisteo North Study Area

The Galisteo North Road (LA 80011) Segment No. 1, The La Bajada descent.

The Juana Lopez- San Felipe branch of the Camino Real separated from the the Las Bocas road at La Cienega and Los Pinos Ranch. It then crossed over the plains west of the Los Cerrillos range and descended into the Galisteo drainage. The road began at the eastern edge of the La Bajada cliff in the present location of the modern Waldo road. The trail followed the crest of a gravel ridge and then an arroyo to the plains below. Unfortunately, this area has been destroyed by the modern Waldo road and by gravel pit operations. The original roadway alignments can be seen in the SCS 1935 aerial imagery.

It is unfortunate this important descent along the Camino Real has been destroyed by modern development. It was this section of the road which appears to have been improved by the U.S. Military in 1858. Reference to this improvement is made by Colonel J. J. Abert, Commander of the U.S. Corps of Topographical Engineers, in the annual report of 1858 (Senate Executive Document No. 1, 35th Congress 2nd Session, Vol. 3 No. 1, Appendix F). In reference to this improvement, Colonel Abert states;

"The sum of \$12,000 originally appropriated for this long road of some 300 miles (ie. road from Santa Fe to Doña Ana), was entirely too small. The small balance that came into the hands of the engineer in charge has been applied to that section of the road between Santa Fe and Albuquerque, and a party has been at work upon the descent into the valley of the Galisteo"

"a party has been set at work upon the somewhat difficult descent into the valley of the Galisteo, as being the point where most good can be done with the means available." Inspection of the gravel benchlands in the area of La Bajada descent failed to reveal any evidence of the original Camino Real road bed. It is most probable that the precise route is now followed by the Waldo road which is a wide and graded avenue.

The Galisteo North Road (LA 80011), Segment No. 2

This 500 meter long section of the Camino Real trail is defined by a subtle swale four to six meters wide. The trail, in this area, passes along the west side of a small wash about 150 meters west of a stock water well. The road then enters a wash to the north and is obscured by alluvium.

The Galisteo North Road (LA 80011), Segment No. 3

This one kilometer section of the Camino Real extends across an open grassland plain on the north slope of the Galisteo valley. This portion of the road extends one kilometer northwest from the present railroad grade. The main road in this area is substantially eroded and forms a long linear arroyo four meters wide and up to two meters in depth. There is a parallel avenue to the west of this road which appears to have been used following the initial erosion of the main avenue. However, this road was also abandoned and an alternate route (road segments Nos. 5 thru 9) down the adjacent valley to the east was developed.

Entrenchment of the main roadbed in the Segment No. 3 area is extensive on the lower south end near the railroad grade. Erosion in this area has cut two meters in depth to the bedrock. Erosion of the roadbed decreases to one meter in depth at 200 to 300 meters north of the railroad bed. Juniper trees, two to three meters in elevation, grow in the roadbed along this section. Near the north end of this road segment, erosion control dams have been constructed to prevent further entrenchment. Above these dams, the road swale reduces to 50 cm in depth and six meters in width.

The Galisteo North Road (LA 80011), Segment No. 4

This two kilometer section of the Camino Real is the north approach to Galisteo Wash. It has been substantially destroyed by erosion. The roadbed, as it crosses the present railroad, is a deeply entrenched arroyo. From here, the road proceeded south down a lateral valley to the Río Galisteo. The floor of this valley has been substantially eroded and contains a deeply entrenched and dendritic arroyo system. No evidence of the Camino Real remains.

The Galisteo North Road (LA 80011), Segments Nos. 5 thru 8, The East Alternate Roadway

Another alternate eastern descent in the lower northern plain of the Río Galisteo valley was apparently used after the erosion of the original west roadway. This roadway branches off the main avenue below the La Bajada escarpment and proceeds south through a narrow gap in a dike ridge. It then follows the open plain joining the Río Galisteo in about the same area as the west branch. This roadway was an incised and abandoned avenue in the 1935 SCS aerial imagery, but is now partially used by a modern two track road.

The Galisteo North Road (LA 80011), Segment No. 5

The roadway north of the dike is partly followed by a new two track. The old road is defined as a shallow swale four to six meters in width.

The Galisteo North Road (LA 80011), Segment No. 6

There is a narrow pass in an dike ridge through which this road passes. A section of the ridge slope appears to have been leveled and a few stones moved to form a curb in the pass area. This narrow pass is the only location along the dike formation where a road may pass. Even so, this passage required the development of a short section of cut and fill construction. Large basalt blocks (50 cm to 1.5 m in size) were removed from a south slope of the pass and were used as a fill and a border on the lower side. This provided a level roadbed around a twenty meter section of the pass slope. This road section was first seen in November of 1989. It was revisited in September of 1990 to obtain photographs and was found to have been bull-dozed as part of a ranch road improvement.

The Galisteo North Road (LA 80011), Segment No. 7

This 500 meter section of the eastern alternate Galisteo north road extends from the dike pass, south to the present railroad grade. Here, the road crosses an open grassland slope toward the Galisteo. The road, in this area, is defined by two contiguous tracks which consists of a corrugated swale 10 meters in width. The modern two track road is three meters wide and follows along the eastern track of the old road.

The Galisteo North Road (LA 80011), Segment No. 8

This section of the Galisteo eastern alternate road extends for a distance of 600 meters from the present railroad grade, south to the disturbed area above Galisteo Dam. A modern two-track road follows along the older roadbed in this area. This two track is well defined in the 1973 aerial imagery, but it has been abandoned recently. Road segment No. 8 is defined by a 10 meter wide shallow swale which crosses a gravel paved grassland slope.

A number of shallow depressions, five to six meters in diameter, are located along the side of the road, but these may post- date the road use. These depressions appear to have been excavated but their function, if any, is unknown.

Based on the projected alignment of the Segment No. 8 roadway, it appears to have joined the earlier western branch of the Camino in approxiately the same area north of Galisteo Wash. The Camino Real appears to have

crossed the Galisteo Wash in the area of the present dam site. Sections of the trail are preserved on the south bank below and west of the dam and are described in the Los Alamito study area.

THE GALISTEO REGION LOS ALAMITOS STUDY AREA

The Los Alamitos study area includes a two kilometer section of the Camino Real Trail and associated sites which appear on a general eastwest course along the south embankment of the Río Galisteo. The western limit of the study area is the boundary of the Santo Domingo Grant and the Mesita De Juana Lopez Grant. The eastern limit of the study area is Galisteo Dam. This section of the Camino Real is designated as LA 80010.

Los Alamitos Road (LA 80010)

Los Alamitos Road Segment No. 1

This 400 meter section of the Camino Real trail follows a south valley, toward the Galisteo Wash, on a northeast-southwest orientation. The trail, which is well defined in the aerial imagery, crosses an open grassland flat and passes east of a prominent sandstone knoll. Inspection of this butte failed to reveal graffiti or any other trail associated features. The south end of this trail segment ends at a steep arroyo bank. The trail is defined by a shallow swale 8 to 10 meters wide. On the open grassland east of the sandstone knoll, there are two parallel swales each 4 to 6 meters wide and separated by 10 meters. These parallel avenues are also visible in the aerial imagery. The north end of this road segment, near the point where the trail turns to the east, is captured by an arroyo and is deeply eroded.

Los Alamitos Road Segment No. 2

This 200 meter long segment of the Camino Real has an east- west orientation along the

south bank of the Río Galisteo. The road crosses an alluviated grassland plain of the south floor of the Galisteo valley. The road is defined by a wide (10-12 m) and shallow swale.

Los Alamitos Road Segment No. 3

This 100 meter segment of the Camino Real Trail is near the confluence of a south lateral arroyo and the bank of Galisteo wash. This road segment (illustrated as part of bridge site (LA 80003) was the old crossing of the south lateral arroyo. Here, the roadbed cut across an arroyo draining north into the Río Galisteo. This arroyo crossing was made down an earth- cut rampway. The road is 10 meters in width. The west approach to the arroyo bank has been captured by a side arroyo and is deeply entrenched. Entrenchment of the arroyo destroyed the roadbed and caused its abandonment. There is also evidence of an alternate road-ramp down the south bank of the Galisteo Wash, adjacent to the arroyo crossing.

Los Alamitos Road Segment No. 4

This alternate 200 meter long section of the Camino Real was developed in conjunction with the south lateral arroyo bridge construction project. This bridge, designated as LA 80003, was apparently built in 1859 by the U.S. Army Topographic engineers as part of the Galisteo Wash Crossing improvement project. A road swale, 10 meters in width, approaches the bridge construction which spans a narrow 15 meter wide section of the arroyo. The west approach to the bridge passes between a low sandstone knoll and the gravel bench formation and onto the west foundation of the bridge. Only the south foundation or platform of the bridge structure remains intact. The remainder of the bridge is eroded. Large log beams, about 10 to 15 meters in length, apparently formed the bridge bed.

Los Alamitos Road Segment No. 5

This 200 meter segment of the Camino Real trail is located in the area of the Los Alamitos

encampment site, LA 80002. This north-south section of the Camino Real was a former crossing of the Galisteo Wash and was the continuation of Road Segment No. 3. The trail proceeded to the south embankment of the Galisteo Wash where it entered the arroyo floor. Today this entrance to the Galisteo Wash is a steep bank, three meters high. The road, as it approaches the arroyo bank, is 15 to 17 meters wide and is defined by a shallow swale which fosters growths of cholla and grass. A forge area is present adjacent to the road near the arroyo bank. This south entrance- crossing of the Galisteo Wash was probably destroyed by erosion sometime in the middle 19th century, as it appears to have been replaced by the eastern alternate roadway (Road Segments No. 6 and No. 7).

Los Alamitos Road Segments Nos. 6 and 7

This 250 meter section of the Camino Real has an east- west orientation across the south floor of the Galisteo valley. Here, the road (segment No. 6) is defined by a conspicuous swale 10 meters wide and 50 cm in maximum depth. There is a narrow earth berm along a portion of the north roadside. Exposed soils and vigorous growths of grass and saltbrush also serve to define the road. This section of the Camino Real was apparently used after the abandonment of the Segment No. 5 crossing.

On the eastern edge of the Los Alamitos site, the Camino Real descends into a lateral south arroyo. This section of the road, designated as Segment No. 7, is six meters in width and passes between a rock outcrop and a steep bench slope. Passage down this slope required some rampway construction. Cobble stones and earth were removed from the roadbed and thrown up as a curbing on the north side. A few large sandstone boulders were also moved from the roadbed. A two meter high juniper tree has is growing in the roadbed area.

Below and east of the Segment No. 7 rampway, the Camino Real crossed a low arroyo and ascended onto the gravel benchlands to the east. Here, the road entered the area of Galisteo Dam where it has been destroyed by construction.

VEGA DE LOS TANOS STUDY AREA

Vega de Los Tanos LA 80015, Road Segment No. 1

Road Segment No. 1 is a one kilometer section of the trail that crosses an open grassland plain directly east of I- 25 and extends to a powerline. Two parallel roads were observed in this area. Both tracks are 6 meters wide. The south parallel track continues to be used as a two track automobile road. The north parallel road has been long abandoned and is stabilized and revegetated.

Vega de Los Tanos LA 80015, Road Segments Nos. 2-5

A reconnaissance of a 1.4 kilometer section of the Camino Real directly east of State Highway 22 was completed. The trail corridor in this area is well defined and consists of two parallel tracks over the entire section. The road sections at arroyo crossings are extensively eroded. Erosion of the west track is the most substantial, suggesting that this avenue has the most antiquity. The use, however, of two parallel roads on the open plain between the arroyos indicates that the two lanes were in simultaneous use. The road segments observed in this area appear to have been long abandoned. The roads are deeply eroded at arroyo crossings and have two to four meter high juniper trees growing in the tracks. There is no evidence to suggest that this road section was ever used by automobiles.

Vega de Los Tanos LA 80015, Road Segment No. 2

This road segment stretches 300 meters east from State Highway 22 to an arroyo crossing. A single 12 meter wide swale with low 50 cm banks is visible at the highway crossing. These diverge into two eroded parallel tracks, 4 to 6 meters wide, as the road proceeds down the slope of an arroyo. Juniper trees, two to four meters high grow, in the road. Erosion of both parallel tracks is considerable as they approach the

deeply cut arroyo. There is no evidence of a ramp- way construction at the arroyo crossing. The major entrenchment of this arroyo appears to postdate the road use.

Vega de Los Tanos LA 80015, Road Segment No. 3

This 150 meter section of the road extends down the north slope of an arroyo crossing. As the trail approaches the arroyo, it is defined by two closely parallel tracks. These diverge into three parallel tracks on the lower slope. The western track is eroded and entrenched and was probably abandoned during the use of the road. Both of the eastern tracks are defined swales and all are entrenched at the arroyo crossing. There is no evidence of a ramp- way on the arroyo floor.

Vega de Los Tanos LA 80015, Road Segment No. 4

This 700 meter segment of the road goes across a grassland plain between two south to north drainage areas. The area is open and level. There are two well- defined parallel swales in this area. Both are shallow paths, 8 meters in width, and are spaced ten meters apart. The roads are vegetatively differentiated by growths of snakeweed. The presence of two widely spaced parallel roads in this open plain suggest that this section of the road had two lanes, perhaps for north and south traffic, that were in simultaneous use.

Vega de Los Tanos LA 80015, Road Segment No. 5

This 300 meter section of double track road extends along the upper south slope of an arroyo drainage. Here, the west road track is captured and entrenched by an arroyo. The east track remains stable and is defined by a shallow swale eight meters in width. A line of juniper trees, 3 to 4 meters high, grow in the eroded west track.

THE LA BAJADA-LAS BOCAS ROADS THE MAJADA MESA STUDY AREA

There are two alternate avenues of the Camino Real Trail across the Majada Mesa. These roads extend from the area of La Bajada Village and proceed southwest across the grassland plains toward Santo Domingo Pueblo. The La Majada North alternate road leads to the Pre- Revolt Period Pueblo of La Bajada (LA:7) and appears to be the earlier Colonial Period roadway. The South alternate goes directly west from the mouth of Santa Fe canyon to Santo Domingo. It is the probable Post- Revolt avenue. Both roads were, however, used into the Territorial Period.

The Majada North and South alternate roads converge at the north escarpment edge of Galisteo Wash (approximate locus NE 1/4 of Section 16, TI₅N, R6E), and proceed down the escarpment slope southwest to Santo Domingo Pueblo. Both the North and South Majada roads were apparently abandoned when a new graded automobile highway was built (ca. 1903-1909) from La Bajada to the railroad village of Wallace (Post Office established 1882, Pearce 1965:177).

The La Majada north and south alternate roads are among the best preserved sections of the Camino Real in New Mexico. Both avenues are defined by wide and often deep swales which cross the grassland plains and have prominent definition in the aerial imagery. Neither of the roads appear to have been in use since at least the 1930's.

The La Majada North road, which links the La Bajada Pueblo (LA:7) to the Camino Real, appears to have been an early Colonial avenue. However, it was also was used in the Territorial Period. The La Majada South road, which leads directly from Santa Fe Canyon to Santo Domingo, appears to have been used primarily in the Territorial Period. A photograph taken in 1915 from the summit of La Bajada hill shows that the road in use was a graded highway between the La Majada North and South alternates (N.C. Nelson 1915 The excavation of La

Bajada Pueblo, American Museum of Natural History, Field Notes on File Laboratory of Anthropology.) This photograph also shows some continued two-track use of the North aternate road. The South alternate is not visible in the photograph.

The Las Majada North Road (LA 80007)

The La Majada North road is an alternate avenue of the Camino Real which extends southwest from the area of La Bajada Pueblo (LA:7), southwest 6.1 kilometers, to its junction with the La Majada South road on the Galisteo Wash escarpment. The La Majada North road is one of the best defined sections of the Camino Real Trail in New Mexico. The formation and preservation of the road in this area was enhanced by the conditions of this open grassland plain. Vegetative differentiation of the trail, in this area, is limited, but topographic relief is substantial.

Wherever the road crosses ridge slopes it is deeply cut. In the Road Segment No. 2 area, for example, the trail is 12 meters in width and up to two meters in depth. Over most of the La Majada North road, there are two parallel road beds, 5 to 8 meters in width and 25 cm to 1.0 m in depth. These roads may represent north and south lanes for two- way traffic. A narrow pedestrian or horse trail, 2.0m wide and 25 cm to 50 cm in depth, is located along a 800 meter section of the trail in the Provenience Nos. 2 to 4 areas. This is one of few locations where a defined stock trail runs along side of the wagon road. Recognition of this stock trail in the La Majada area is probably due to excellent definition of the trail on the Majada Mesa grassland.

La Majada North Road (LA 80007) Segment No. 1

This 100 meter section of the Camino Real extends from the Pueblo of La Bajada (LA:7) toward the Santa Fe river valley. This section of the road proceeds in a northeast direction from the east block of La Bajada Pueblo, down a cobble-strewn bench slope to the Santa Fe valley

floodplain. The trail in this area has been partially destroyed by the construction of a modern, but now abandoned, bladed roadway. The old road runs diagonal to the bench and is preserved on the lower bench slope. It is defined by a disturbed path, 8 to 9 meters wide, in which are two narrow erosional channels. The road is cut slightly into the bench slope on the upper south side and has a narrow cobble berm on the lower north side.

La Majada North Road LA 80007, Segment No. 2

The Camino Real, as it proceeds for a distance of 200 meters west-southwest of La Bajada Pueblo, is defined by a very prominent cut in a hill slope above the pueblo. This road cut is emphasized in the aerial imagery by the white caliche substrata into which the roadbed intrudes. This extensive cut is 12 meters in width and up to two meters in depth. A narrow swale, 2 meters wide and 50cm in depth, parallels the road cut on the north. This narrow track is probably a path for pedestrian and mounted riders. This path is visible for approximately one kilometer along the side of the La Majada North roadway.

La Majada North Road LA 80007, Segment No. 3

This section of the Camino Real is on an open plain, It extends approximately 300 to 500 meters west-southwest of La Bajada Pueblo. In this section, the road is defined by two parallel swales. The eastern swale is six meters wide and 50 cm in depth. The adjacent west swale is a shallow two meter wide path. It is probable that this narrow path was used by horsemen and pedestrians, while the wider and deeper path was used by wagons.

La Majada North Road LA 80007, Segment No. 4

This section of the Camino Real extends northeast from the area of the La Tetilla Peak

Highway for a distance of approximately 400 meters. Over much of this section, the Camino Real is defined by three parallel tracks. The south track is a wide shallow swale, 6 to 8 meters in width and 25 to 50 cm in depth. Another narrow and deep track to the north is 4 to 5 meters wide and 50 cm to 1.0 m in depth. Vet another narrow path, 2 meters wide and 25 cm in depth, parallels the road on the north. This narrow path- like feature may be a pedestrian or horse trail adjacent to the wagon roads.

La Majada North Road LA 80007, Segment No. 5

The Provenience No. 5 section of the La Majada North road extends for a distance of 300 meters southwest of the La Tetilla Highway. The Camino, in this section, is defined by a double swale. The north swale is 8 meters wide and up to 1.0m in depth. The parallel south swale is 5 meters in width and 25 cm. to 50 cm in depth.

La Majada North Road LA 80007, Segment No. 6

This 600 meter section of the Camino Real extends across the open grassland plain of Mesa Majada, approximately 1.25 kilometers northeast of State Highway 22. The trail, in this area, consists of a shallow swale, 15 meters in width. Narrow earth berms are present on the road edges. In the summer of 1990, a linear path of green grass defined the road swale.

La Majada North Road LA 80007, Segment No. 7

This 800 meter section of the Camino Real stretches across the open grassland plain of Mesa Majada. It is approximately 400 meters northeast of State Highway 22. The road is defined by a wide shallow swale, approximately 20 meters in width and 25 cm in depth. In some areas, two parallel swales are visible, but these blend into a wider zone of disturbed soils.

La Majada North Road LA 80007, Segment No. 8

This section of the Camino Real extends for a distance of 400 meters northeast of the State Highway 22. It crosses the open grassland plain of La Majada and is defined by two conspicuous parallel swales. The road swales are 5 and 6 meters wide and are separated by a berm which is five meters in width. The only vegetative differentiation noted in this area is the low density of snakeweed in the road. There is a slight angle change in the road between the Provenience No. 7 and 8 segments.

The La Majada South Road

The La Majada South road alternate extends west from the mouth of Santa Fe Canyon across the plains of La Majada Mesa towards Santo Domingo Pueblo. This road is the direct route from Santa Fe Canyon to Santo Domingo Pueblo. It joins the La Majada North alternate on the edge of the Galisteo Wash escarpment. The La Majada South road was clearly used by traffic which passed up the floor of Santa Fe Canyon.

The South alternate road is defined by a prominent scar on the grassland plains of La Majada Mesa. The road is a well defined and re-vegetated swale. Both single (6 to 8 meter wide) and double road tracks are present in the study area. There are very prominent cuts in two areas (Segments No. 1 and 3) where the road crosses low sandy ridges. In these areas, the road- cut is up to 20 meters wide and two to three meters in depth. These cuts were formed primarily by aeolian action which removed the disturbed sandy sediments from the road bed.

La Majada South Road LA 80008, Segment No. 1

The easternmost section of the La Majada South road, for a distance of 300 meters as it approached the mouth of Cañada De Santa Fe, is designated as road provenience No. I. This section of the road is located on the south

benchland of the Santa Fe drainage and is disected by a series of arroyos. Three arroyos cross the La Majada South road. Two of these have cut into the road following its abandonment. One arroyo crossing, however, has a bypass avenue around and 20 meters east of the original road. This indicates that entrenchment coincided to the road use. The arroyos which cross the road have captured the roadbed runoff. This has resulted in a partial entrenchment of the road 6 meters in width and up to 2.0 meters in depth.

One section of the road near the entrance to Santa Fe Canyon is defined by an impressive 20 meter wide road- cut two to three meters in depth. This cut was made in a sandy hill slope and was apparently entrenched by aeolian action during the roadway use.

La Majada South Road LA 80008, Segment No. 2

This segment of the La Majada South road extends for a distance of approximately one kilometer across the open grassland plain of La Majada Mesa. The road in this area consists of single swale, 8 meters in width and from 50cm to 75cm in depth. The road is vegetatively differentiated by vigorous growths of grasses, snakeweed and rabbit brush; all of which have significantly lesser densities outside the roadway. Occasional small junipers also appear in the road swale which are not present on the surrounding plain.

La Majada South Road LA 80008, Segment No. 3

This section of the La Majada South road begins at the road crossing of the Fiber Optics Communication line and extends 200 meters to the east. The road crosses over a low sandy hill on an open grassland plain. The road has cut an impressive two meter deep and 20 meter wide path through the hill. This segment is one of the most pronounced road cuts known along the Camino Real. This road cut was apparently formed by aeolian action along the road during and following its use. The road, in this area, is a

flat based swale which fosters growths of rabbit brush.

La Majada South Road LA 80009, Segment No. 4

This section of the La Majada South road extends west from the crossing of the Fiber Optics line for a distance of approximately 500 meters. Here, the road is defined by two parallel swales crossing the open grassland plain. Swales vary from five to twelve meters in width and are 50 cm in depth. On the west end of this segment, the road crosses a shallow alluviatec bottomland and blends into a 20 meter wide path.

La MaJada South Road LA 80009, Segment No . 5

This 200 meter trail segment consists of a single well-defined road swale. Here, the road crosses a low sandy rise. The road is 9 to 10 meters wide and is cut deeply (1.0m) into the sandy rise. The definition is largely topographic, although there is more grass and rabbit brush in the swale than in the surrounding plain.

La Majada South Road LA 80008, Segment No. 6

This road segment continues across the open grassland plain of La Majada Mesa for a distance of 600 meters. The road is defined by a single narrow swale that is 6 meters in width. The depth varies from shallow to 50 cm. A line of rabbit brush is present along the edges of the road and in other areas, the road is defined by a linear path of grass.

La Majada South Road Segment No. 7

This section of the La Madaja South Road extends for a distance of 300 meters directly east of the State Highway 22. The road is again represented by two parallel paths. The road swales vary from 4 to 8 meters in width and 25 cm to 75 cm in depth.

The Las Bocas Road

The Las Bocas study area includes that section of the Camino Real which passes through Cañada De Santa Fe (formerly called Cañon de las Bocas), from the mouth of the canyon near La Bajada village, to the village of La Cienega. During the early Colonial period, the Las Bocas road and the Galisteo road (via San Marcos Pueblo) were the principal avenues from Río Abajo north to Santa Fe. Most of the wagon traffic from Santo Domingo to Santa Fe, however, used the Las Bocas Canyon road. There are numerous Colonial period references which indicate use of the Las Bocas road (De Vargas in 1692, Rivera in 1726, Tamaron in 1760, Lafora in 1776 and Dominguez in 1776). Use of the Las Bocas road by wagon traffic was, however, considerably reduced with the opening of the Juana Lopez road in the Mexican Period. The construction of a wagon down the La Bajada escarpment around 1860 also diverted additional traffic from the Las Bocas road. Difficulties in the canyon floor road maintenance, no doubt, encouraged the development of the alternate wagon roads. Despite the development of alternate wagon roads, the Las Bocas canyon road continued to have some traffic in the Territorial Period as indicated in the accounts of Simpson (1849), Whipple (1853), Mölhausen (1853) Davis (1854) and others.

This rather picturesque section of the Camino Real followed the Santa Fe canyon floor and wound its way across the stream in many locations. Whenever possible, the road crossed open benches which were elevated above the stream bed. Frequent fords across the rocky and boulder- strewn stream bed were, however, required which made wagon travel along this section of the Camino Real difficult. Floods often washed out the river crossings and cut or buried the road at side canyons, which required frequent road repair. The presence of large boulders in the canyon floor was a principal obstacle. Indeed, the poor condition of the road after 12 years of disuse was lamented by Diego De Vargas in 1692 (Espinosa 1940:77-79).

The Las Bocas road has been abandoned for about one hundred years. Consequently, the preservation of the road is poor. Most of the road in the Las Bocas canyon floor and lower bench slopes has been destroyed. There are, however, a number of road segments which have been located on level bench flats above the flood zone. These road segments were first recognized in an inspection of the aerial imagery (SCS 1935 Plate No.17972).

Description Of The Las Bocas Road

Las Bocas Road LA 80013, Segment No. 1

The Provenience No. 1 segment of the Camino Real- Las Bocas road is located on a north bench, approximately one kilometer from the lower western mouth of Santa Fe Canyon. Provenience No. 1 is a developed roadbed which ascends a cobble strewn bench slope. Access up the steep, but low, western bench required the construction of a path in the rocky slope. A road corridor which was 20 meters long, three meters wide and 1.5 meters in depth was cleared. Many of the cobbles which form the wall-like berms lateral to the road are large (30cm to l.o m) basalt blocks. This road development is one of the more impressive construction works along the Las Bocas road. The age of this constructed feature cannot be ascertained. The road, however, appears to have been abandoned for some time. The modern bladed road to La Bajada mine has cut the lower section of the old road, and has pushed a number of large rocks into the old roadbed. No artifacts were found in direct proximity to this road provenience.

Las Bocas Road LA 80013, Segment No. 2

This 300 meter road segment stretches across a bench flat on the north side Santa Fe Canyon. This road segment is defined by two parallel swales each, 4 to 5 meters in width and from 85 cm to 50 cm in depth. On the eastern end of the bench, the road parallels the modern dirt track to the La Bajada mine. There is no vegetative differentiation along this section of the road.

Las Bocas Road LA 80013, Segment No. 3

The Provenience No. 3 segment of the Las Bocas road descends a bench slope and crosses an arroyo to a level open terrace. This road is on the north canyon floor, approximately 350 meters west of the La Bajada mine. The modern road and ramp turn- out are constructed along the base of the steep talus slope. The old Las Bocas road descends a nearby bench slope without development. The road scar in this area is four meters wide and has two narrow ruts. This is one of the few Camino Real road segments where two track wheel ruts are visible.

The old Las Bocas road descends the bench, crosses a broad and shallow arroyo and continues east onto a open grassland flat. A platform like structure of basalt blocks is present in the roadbed on the eastern edge of the arroyo. This construction appears to be either a ramp or low bridge footing for the arroyo crossing. As the road crosses of open flat east of the arroyo it is first entrenched and then defined as a shallow swale that is 6 meters in width.

Las Bocas Road LA 80013, Segment No. 4

This 150 meter road segment is located on a lower bench on the north side of Santa Fe Canyon. It is directly west of a narrows in the canyon and approximately 200 meters east of the La Bajada mine. The area surrounding the La Bajada mine has been substantially disturbed by the dumping of tailings in the canyon floor. These tailings have buried the road over a section of approximately 600 meters. The road section which remains is defined by a six meter wide swale that is 50 cm in depth. The upper and eastern end of this section descends into the canyon floor stream bed and is eroded. This is one of the many places in Santa Fe Canyon where the Las Bocas road follows along the canyon floor and crosses the stream bed.

Las Bocas Road LA 80013, Segment No. 5

This 400 meter section of the Las Bocas road crosses an open grassland flat in the area below

Tsinat Ruins. The trail is defined by a shallow swale, 8 to 12 meters in width. In one area, two, nearly contiguous, parallel swales are visible, They are both four meters in width, but one is of lesser depth. The road in this area is without vegetative differentiation.

Las Bocas Road LA 80013, Segment No. 6

The Las Bocas road crossed to the south side of the canyon at the eastern end of Road Segment No. 5. This is near the confluence of Tsinat Canyon arroyo. The road then followed the stream bed and ascended onto a bench flat on the south side of the canyon. Provenience No. 6 is a road swale which crosses one of the south bench flats. The road is 6 meters in width and 50 cm to 1.0 m in depth.

Las Bocas Road LA 80013, Segment No. 7

This road segment is located on a north bench in Santa Fe Canyon, approximately one kilometer west of the Santa Fe Creek- Cienega Creek confluence. This road segment is defined by two parallel lines of boulders which were cleared across a bench point. A single stacked rock masonry room is also present on the bench point. This road segment was not found until the mesa south of the confluence was climbed and the road seen from above.

LA BAJADA MESA STUDY AREA

The La Bajada Mesa road is an alternate section of the Camino Real which led directly from Santa Fe across the open elevated plain of La Bajada mesa to the steep escarpment at La Bajada village. This road was the most direct route between Santa Fe and Santo Domingo. The road, however, traversed the steep and formidable slope of La Bajada. The La Bajada Mesa avenue is an old road. It was in use as early as 1776 (Adams and Chavez 1975;127), and was followed by Zebulon Pike in 1807. It was probably first developed as a stock trail because the steep

escarpment, basalt ledges, benches and boulders prohibited wagon traffic. We do not know when the first wagon road construction was made on the escarpment. However, the route was open to wagon traffic during the early 1860's, following road construction by the U.S. Army.

The old wagon road descended the mesa edge in the precise location of the succeeding automobile highway. The route of the wagon road on the mesa above the escarpment, however, crossed the plains to the east of subsequent highway. The old road across La Bajada Mesa is well defined as an abandoned and re-vegetated avenue in the 1935 SCS aerial photography. A reconnaissance of the escarpment below the mesa top revealed that large sections of the old wagon road remain intact. Only a few sections were destroyed by the later highway construction. The wagon road descent of La Bajada Mesa was not surveyed for the lack of time, but sections of this developed road were seen in a brief reconnaissance.

The wagon road which descends the La Bajada Mesa is defined by numerous areas of construction. Construction along the road includes numerous areas of cleared boulders, a number of stone ramps and one very extensive cut through a basaltic ridge called "the notch". The escarpment wagon road constructions are the most extensive road works that are known along the Camino Real Trail. Most are probably U.S. Army 1860's construction, but some earlier Mexican and Colonial Period development may also be present. Investigation of the La Bajada escarpment road should have top priority if survey of the Camino Real is continued.

Description of La Bajada Mesa Road

La Bajada Mesa Road LA 80014, Segment No. 1

This 200 meter section of the La Bajada Mesa road is located on the escarpment edge of La Bajada Mesa. The old wagon road descends the La Bajada escarpment in the precise location of the succeeding south branch automobile highway. This location is a broken area in the upper cliff of the escarpment which allowed for the construction of the road onto lower benches of the mesa slopes. Here the grade is one of the steepest and most formidable ones along the Camino Real. The construction of a cut rampway for the automobile road on the escarpment rim cliff destroyed the former wagon road. Sections of the wagon road descending the mesa do, however, appear to be intact and the automobile road and the former wagon road seem to have followed divergent routes.

The provenience No. I section of the La Bajada Mesa road extends from the escarpment rim northeast 200 meters to its crossing of the old automobile highway. The road, in this area, is defined by a cleared path (five meters in width) across the rocky surface of the mesa edge. Large basalt boulders, 50 cm to 1.0 m in size, have been cleared from the roadbed and stacked alongside the road. This section of the road is located on the mesa edge west of the old auto road.

La Bajada Mesa Road LA 80014, Segment No. 2

This section of the La Bajada Mesa road extends for a distance of 600 meters across an open grassland plain of the mesa The road in

this area is defined by two wide and parallel tracks. The roads are seven and ten meters in width and eight meters apart. They are defined by shallow (25 cm) swales and are vegetatively similar to the surrounding landscape.

La Bajada Mesa Road LA 80014, Segment No. 3

The La Bajada Mesa road, along this 100 meter section, crosses a low ridge on the open mesa top. This ridge is an exposure of basalt and gravels approximately three meters high. There is an eroded road cut on the ridge edge which is a well- defined white line in the aerial imagery (SCA plate 17972). This eroded section is 20 meters in length and consists of three parallel roads. These roads are four to five meters in width. The west avenue has an eroded base and was probably abandoned while the road was in use.

La Bajada Mesa Road LA 80014, Segment No. 4

This 200 meter section of the La Bajada Mesa road is defined by a single wide swale 15 meters in width and 50 cm in depth. This road diverges into three parallel roads at the north end of the segment. These parallel roads are clearly visible in the aerial imagery.

Appendix G: TRAIL MARKINGS AND SIGNS



Recommended auto tour/original route sign incorporating uniform marker.



Recommended site directional sign on auto tour route.

Appendix H: VISUAL RESOURCE MANAGEMENT CLASSES AND OBJECTIVES FOR BUREAU OF LAND MANAGEMENT-ADMINISTERED LANDS

The overall objective of visual resource management is to manage public lands in a manner that will protect the quality of the visual (scenic) values in accordance with Section 102(a)(8) of the Federal Land Policy and Management Act of 1976 (FLPMA). The Bureau of Land Management (BLM) Visual Resource Management (VRM) system is a methodical approach to inventorying and managing the scenic resources of the public lands.

The visual resource inventory process (BLM Manual Section H- 8410-1) provides the agency with a means of determining visual values. The inventory consists of a scenic quality evaluation, a sensitivity level analysis, and a delineation of distance zones. Based on these factors, as well as legislative or administrative mandates, one of four VRM Classes is assigned to BLM- administered lands.

Class I, the most highly valued visually, is assigned to those areas where decisions have been made to maintain a natural landscape. This includes areas such as a national wilderness, the wild component of a Wild and Scenic River (WSR), Areas of Critical Environmental Concern (ACEC) designated for scenic values, and other congressionally and administratively designated areas where decisions have been made to preserve a natural landscape. Classes II, III, and IV are assigned to areas based on a combination of scenic quality, sensitivity level, and distance.

The specific objective(s) of each VRM Class provide(s) the standards for planning, designing and evaluating actions. The Contrast Rating System (BLM Manual Section 8431) provides a methodical means to evaluate activities and determine whether they conform with the approved VRM objectives. The degree of contrast is measured by assessing how much a proposed activity stands out when viewed from key

observation points and compared with the predominant natural landscape elements of form, line, color and texture.

The VRM Classes and their corresponding management objectives are as follows:

Class I - To preserve the existing character of the landscape. This class provides for natural ecological changes; however, it does not preclude very limited management activity. The level of change to the characteristic landscape should be very low and must not attract attention.

Class II - To retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

Class III - To partially retain the existing character of the landscape. The level of change to the characteristic landscape should be moderate. Management activities may attract attention but should not dominate the view of the casual observer. Changes should repeat the basic elements found in the predominant natural features of the characteristic landscape.

Class IV - To provide for management activities that require major modification of the existing character of the landscape. The level

of change to the characteristic landscape can be high. These management activities may dominate the view and be the major focus of viewer attention. However, every attempt should be made to minimize the impact of these activities through careful location, minimal disturbance and repeating the basic landscape elements. The VRM System, therefore, provides a means to identify visual (scenic) values; establish objectives through the Resource Management Planning process or on a case- by- case basis for managing these values; and provide timely input into proposed surface- disturbing projects to ensure the assigned objectives are met.

See Maps 4A, 4B, 4C, and 5

APPENDIX I CERTIFICATION AGREEMENTS

DRAFT

El Camino Real de Tierra Adentro National Historic Trail Certification Agreement

Number sequentially by state. Designate with an "S" for trail site or segement or "I" for an interpretive facility/site. An agreement for a location that includes an interpretive facility and a trail site can have both S and I in the number. For example MO- S- 001, IL- I- 013, TN- S- I- 002. Certification Agreement.

Once document is complete go through and replace "owner/manager" or "owner" with the name of the organization or agency whenever appropriate.

Site name, city, county, state

Type of Property: (historic site or historic trail segment,)

Description of Property:

(This section provides a brief description that identifies the property being certified, ncluding, as possible, boundaries of the area.)

Parties to the Agreement and Principal Contacts

Agency, organization, etc El Camino Real de Tierra Adentro Administrative

Office Address:

Santa Fe, New Mexico
? phone: 505-xxx-xxxx phone
? fax 505-xxx-xxxx fax
email address
Partner contact Name and Title contact name and title

Delete Complementary Interpretive Facility or Site/Segment as needed from the above header. For sites

not owned by a trail state agency select the first paragraph below and delete the other five. For a site owned by a state agency, select the appropriate paragraph and delete the others.

This agreement is based on the mutual agreement of the El Camino Real de Tierra Adentro Administrative Office and the owner/manager to voluntarily strive to achieve the highest level of resource protection and visitor appreciation of trail resources as provided for in the Comprehensive Management and Use Plan for the El Camino Real de Tierra Adentro National Historic Trail for "...the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment." {National Trails System Act 16 U.S.C. - 1241 et seq. Section 3(a)(3)}.

The owner/manager retains all legal rights to the property, and nothing in this agreement is to be construed as granting any legal authority to the El Camino Real de Tierra Adentro Administrative Office over the property or any action by the owner/manager.

The certification agreement is non-binding, and may be canceled by either party at any time by written notice. The El Camino Real de Tierra Adentro Administrative Office and the owner/manager agree, whenever possible, to identify issues or concerns to allow for resolution.

I. Technical and Financial Assistance

Within the scope of this agreement and the National Trails System Act, the El Camino Real de Tierra Adentro Administrative Office agrees to provide, based on funding and personnel limitations, technical assistance in the following areas: Select the appropriate terms from the following and delete the others. cultural and natural resource planning, management, and protection; archeology, ethnography, historical architecture, and historical landscape architecture; visitor use planning and developments; historical research; visitor management and protection; accessibility for persons with disabilities; exhibit and interpretive media design, planning, and production for El Camino Real de Tierra Adentro interpretation; and interpretive and other appropriate training.

Subject to availability of funding, tDelete the paragraph re: financial assistance for Category III facilities.he El Camino Real de Tierra Adentro Administrative Office may be able to provide limited financial (cost-share) assistance, where appropriate, for resource preservation, site development, and interpretive media and programs. Funding will require completion of a cooperative agreement or contract in compliance with applicable federal law and policy.

The El Camino Real de Tierra Adentro Administrative Office can provide the owner/manager with access to El Camino Real de Tierra Adentro Administrative Office produced publications, traveling exhibits, audiovisual programs, etc., as appropriate, and within existing authorities. Some items, such as brochures, may need to be provided on an actual cost or cost-share basis.

The El Camino Real de Tierra Adentro Administrative Office will make a reasonable effort to visit the site from time to time, or on request, to meet with the owner/manager to discussion concerns, projects, or issues related to this agreement or joint projects.

2. Agreement Provisions

a. Planning and Visitor Use

The El Camino Real de Tierra Adentro Administrative Office and the owner/manager agree, as appropriate, to jointly review, and update any existing plans and to develop and implement new plans for visitor use, resource protection and management, and interpretation in order to better meet the goals and objectives of the El Camino Real de Tierra Adentro National Historic Trail Comprehensive Management and Use Plan.

The owner/manager agrees to notify and invite the El Camino Real de Tierra Adentro Administrative Office to participate in all planning efforts, at the beginning of the planning process. The El Camino Real de Tierra Adentro Administrative Office will notify and invite the owner/manager to participate in any trailwide planning efforts at the beginning of the planning process.

Existing facilities at historic sites must generally meet any applicable accessibility requirements that were in effect when they were built. New visitor- use facilities including trails, interpretive media, museum exhibits, buildings and so forth, must meet applicable Americans with Disabilities Act Accessibility

Guidelines (ADAAG) and any other relevant federal laws and policies related to physical accessibility for persons with disabilities,.

The owner/manager agrees to permit recreational visits to the historic site and/or trail corridorDelete the section between the brackets for non- privately owned sites., subject to such restrictions as may be necessary to manage and protect the owner's property, privacy, and other legal rights. Restrictions shall be without regard for race, color, religion, national origin, sex, age, or handicap.

b. Interpretation

The El Camino Real de Tierra Adentro Administrative Office and the owner/manager jointly agree to cooperate and concur in the development of new information and interpretive materials and will review existing materials to identify changes that may be needed to meet the objectives and standards for the El Camino Real de Tierra Adentro National Historic Trail.

The El Camino Real de Tierra Adentro Administrative Office is required to meet the requirements of Sections 504 and 508 of the Rehabilitation Act for programmatic accessibility of all national historic trail interpretive media and programs, and will provide assistance so that joint projects are in compliance with this requirement.

Select the appropriate Category of facility and delete the other paragraph. c. Resource Management

If, during the execution of a particular project, the requirements of laws such as the National Environmental Policy Act of 1969, Endangered Species Act, or National Historic Preservation Act of 1966 are triggered, (usually as a result of substantial federal involvement such as federal funding or requirements for federal permits), the El Camino Real de Tierra Adentro Administrative Office shall work with the owner/manager to comply fully with those requirements.

The owner/manager agrees to provide the earliest possible notification of any actions or proposed activities, by the owner/manager or others, (such as, but not limited to, visitor use developments, highway projects, telecommunication towers, resource management actions, excavation, construction of new buildings, drilling and so forth) that could impact site resources, site integrity, subsurface artifacts, or the landscape surrounding the site so as to allow review and comment by the State Historic Preservation Officer and the El Camino Real de Tierra Adentro Administrative Office.

The El Camino Real de Tierra Adentro Administrative Office agrees to assist the owner/manager with the evaluation of existing conditions and activities and visitor use as a result of this agreement to avoid and/or mitigate impacts to resources.

Rewrite this as needed for privately owned sites.

The owner/manager agrees to cooperate in the documentation of the site for the purpose of evaluation for eligibility for, and nomination to, the National Register of Historic Places.

d. Site Recognition and Promotion

The El Camino Real de Tierra Adentro Administrative Office agrees to allow the owner/manager to use the official trail logo (TM) for approved posting purposes for the term of the agreement, and will provide the logo to the owner/manager. Additional uses of the marker, such as on highway directional signs, site brochures, and other non- commercial materials are encouraged, but must be approved in advance by the El Camino Real de Tierra Adentro Administrative Office.

The El Camino Real de Tierra Adentro Administrative Office will include the site and/or segment and location in appropriate publications, exhibits, web pages, and other media.

The owner/manager agrees to provide El Camino Real de Tierra Adentro Administrative Office-produced or - approved information and interpretive materials to the public, and to promote the El Camino Real de Tierra Adentro National Historic Trail interpretive, informational, and marketing programs through owner/manager-produced materials, as appropriate.

3. Informational Provisions for Private Landowners

a. State Liability Protection

New Mexico Statutes Annotated 17- 4- 7. provides for protection of landowners from liability arising from recreational use of their lands by the public when no fees are charged. A copy of this statute is attached to this agreement.

Texas Statutes and Codes Title 4, 75.00I- 004 provides for protection of landowners from liability arising from recreational use of their lands by the public when no fees are charged. A copy of this statute is attached to this agreement.

b. Volunteers-in-Parks

Volunteers- in- Parks (VIP) status in accordance with Public Law 91-357 (16 U.S.C. 18g- j) may be conferred by the El Camino Real de Tierra Adentro Administrative Office on approved individuals including the owner and specified family members, employees, or cooperating organization members if requested. Under volunteer status, a person will be considered a federal employee only for tort claims and injury compensation for approved national historic trail activities, or for trail maintenance or related trail management, as expressed in a standard El Camino Real de Tierra Adentro Administrative Office volunteer agreement. No person will be considered a volunteer until a volunteer agreement has been signed by all required parties.

Separate volunteer agreements may be developed with the owner, members of his/her immediate family, and other designated persons who will be involved in carrying out the routine provisions of this certification. Individuals or groups involved in Trail-related non-recurring resource management or maintenance must be covered by one-time volunteer agreements.

4. Term of Agreement

This agreement will remain in effect unless cancelled by either party, or the property ownership/management is transferred to another.

5. Signatures			
		the certification of the ntro National Historic Trail	as an official
Name/Title		Date	
	•	ertify the site(s) described in this Fierra Adentro National Historic	0
(Name/Title	eal de Tierra Adentro Ad	Date	

Agreement No. 1443GA125001002

GENERAL AGREEMENT BETWEEN THE U.S. DEPARTMENT OF THE INTERIOR, NATIONAL PARK SERVICE AND THE STATE OF NEW MEXICO CONCERNING THE SANTA FE NATIONAL HISTORIC TRAIL

The General Agreement is entered into by and between the U.S. Department of the Interior, National Park Service ("Service"), and the State of New Mexico ("State").

Article I. Authorities

This General Agreement is developed under the following authorities:

A. The National Trails System Act (16 USC 1241, et seq.), as amended by Public Law 100-35 (101 Stat. 302, 16 USC 1244 (a)(15).

B. Intergovernmental Cooperation Act of 1968 (42 USC 4201 et seq.).

Article II. Purpose

The purpose of this General Agreement is to provide the basis for cooperation between the Service and the State to implement the <u>Comprehensive Management and Use Plan</u> for the Santa Fe National Historic Trail

Article III. Background

Public Law 100-35 (101 Stat. 320, 16 USC 1244 (a)15, amended the National Trails System Act ("the Act") to establish the Santa Fe National Historic Trail ("the Trail"). The Act places responsibility for administering the Trail with the Secretary of the Interior ("Secretary"). Only federal lands are to be administered as initial protection components of the Trail; but the Act authorizes the Secretary to encourage and to assist State, local, or private entities in establishing, administering, and protecting those segments of the Trail which cross non-federally owned lands. In furtherance of that objective, the Act allows Memoranda of Understanding between the Service and cooperating nonfederal agencies to be written for marking the trail, establishing rights- of- way, and developing and maintaining facilities. Pursuant to the Act, the Comprehensive Management and Use Plan for the Trail outlines objectives and practices to be observed in the management of the Trail and identifies significant potential Trail components, procedures for nonfederal certification, and the process to mark the Trail. The Governor of the State of New Mexico and appropriate State agencies were consulted in the preparation and approval of the Comprehensive Management and Use Plan.

Article IV. Responsibilities

The State and the Service mutually desire that the Santa Fe National Historic Trail across the State of New Mexico be appropriately marked, administered and managed so as to accomplish the purposes of the National Trails System Act. Accordingly, the State and the Service agree to carry out the following responsibilities for this purpose.

- A. The U.S. Department of the Interior, National Park Service and the State of New Mexico agree to:
 - I. Establish individual coordinators within each administering agency for Trail administration activities.
 - 2. Adopt the Santa Fe National Historic Trail <u>Comprehensive Management and Use Plan</u>, dated May 1990, and manage the Trail's resources as appropriate and feasible.
 - 3. Keep each other informed and consult periodically on management problems pertaining to the Trail.
 - 4. Coordinate development of the Santa Fe NHT and its Auto Tour Route with the State's Santa Fe Trail Scenic Byway to maximize public benefits and minimize conflict and duplication of efforts.
 - 5. Subject to the availability of funds and personnel, provide assistance at the request of either party for the planning and development of facilities, completion of environmental or other compliance requirements, acquisition of land, and the administration of the Trail. The parties understand and agree that this agreement does not obligate any federal or state funds and that they must execute additional written agreements to do so. Those additional agreements shall specify and control the uses of any obligated funds.

B. The Service agrees to:

- I. Provide the State with an initial set of Trail markers in accordance with the marking program established in the <u>Comprehensive Management and Use Plan</u> and authorize highway department use of the logo for appropriate directional signs.
- 2. Publish a notice of the Trail route in the Federal Register.
- 3. Upon request, and as funds permit, provide technical assistance for planning access, protection, facilities, interpretation, and other aspects of management of the Trail.
- 4. Support efforts that promote the whole trail as a single, integrated system.

C. The State agrees to:

- I. Mark the Santa Fe National Historic Trail with an initial set of markers furnished by the National Park Service (NPS) according to the marking process and signs identified in the <u>Comprehensive Management and Use Plan</u>.
- 2. Maintain the trail markers erected under item C.I.
- 3. Administer, manage, protect, and maintain State- owned Trail sites and segments in accordance with the purpose of the Trail and the Comprehensive Management and Use Plan.
- 4. Develop, operate, and maintain public access, interpretive and recreational opportunities, and visitor use facilities in accordance with the <u>Comprehensive Management and Use Plan</u> and relevant federal laws and service policies, and recommend appropriate State facilities to house NPS interpretive media or to receive NPS technical assistance.
- 5. Provide private landowners and nonfederal managing entities with cultural resource compliance assistance (i.e., National Historic Preservation Act of 1966, as amended, sections 106 and 100) and natural resource compliance assistance, including on-site technical evaluations and review of plans, designs, and mitigation measures.
- 6. Identify trail projects on appropriate programming documents (e.g., SCORP) and seek funding from State appropriations and federal sources such as the Land and Water Conservation Fund or historic

preservation grants (e.g., National Historic Landmark Program, Historic Preservation Fund) for acquiring, administering, managing, developing, operating, and maintaining State- owned Trail sites and segments or preserving privately- owned sites on the National register of Historic Places or designated as National Historic Landmark sites.

- 7. Seek such additional state legislative authority as may be required for public use of, and to obligate State funds for management of, State-owned rights- of- way, sites, or other lands in the trail corridor.
- 8. Promulgate such rules and regulations as may be necessary for proper administration and protection of State- owned or privately owned sites and segments.
- 9. Seek cooperative agreements with owners of those private lands within the Trail corridor adjoining high potential State- owned sites and segments where necessary to ensure adequate protection or public access.
- 10. Consider acquiring necessary interests in those lands identified in item C.9.
- II. Work cooperatively to develop an interstate trail promotion task force to promote the whole Santa Fe National Historic Trail on a national and international basis.
- 12. Help plan and establish historic branch trails.

Article V. Standard Clauses

A. Civil Rights.

During the performance of this General Agreement, the cooperators agree to abide by the terms of Executive Order 11246 on nondiscrimination and will not discriminate against any person because of race, color, religion, age, sex, or national origin. The cooperators will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, age, sex, or national origin. No otherwise qualified individual will be denied access to a program or activity solely on the basis of a handicap.

B. Officials Not to Benefit.

No member or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

C. Promotions.

The State shall not publicize, or otherwise circulate, promotional material (such as advertisements, sales brochures, press releases, speeches, still and motion pictures, articles, manuscripts or other publications) which states or implies Governmental, Departmental, bureau or Government employee of a product, service or position which the State represents. No release of information relating to this agreement may state or imply that the Government approves of the State's work product, or considers the State's work product to be superior to other products or services.

D. Public Information Release.

The State must obtain prior government approval from the Superintendent, Long Distance Trails Group Office - Santa Fe, for any public information releases which refer to the Department of the

Interior, any bureau, park unit, or employee (by name or title), or this agreement. The specific text, layout, photographs, etc., of the proposed release must be submitted with the request for approval.

Article VI. Limitation

Nothing in this General Agreement will be construed as limiting or affecting in any way the authority or legal responsibilities of the Service or the State to perform beyond the respective authority of each or to require either party to expend funds in any context or other obligation for future payment of funds or services in excess of those available or authorized for expenditure.

Article VII. Amendment and Termination

Amendments to this General Agreement may be proposed by either party and shall become effective upon written approval by both parties.

This General Agreement will exist for a period of no longer than five years, at which time all parties to the General Agreement will evaluate its benefits and determine if the Agreement should be reaffirmed. It may be terminated or revised upon 60 days advance written notice given by one of the parties to the other, or it may be terminated earlier by mutual consent of both parties.

Article VIII. Execution

In witness whereof, the parties hereto have executed thi	is General Agreement as of the last dat
written below:	

Regional Director Governor
Intermountain Region State of New Mexico
National Park Service

APPENDIX J COMMENTS AND RESPONSES

The public comment period for the draft CMP/EIS ended on January 15, 2003. Comments were contributed by mail, by email through the website, www.elcaminoreal.org, and through a series of public meetings held between November 6, 2002, and January 6, 2003. During the comment period, 47 comments were received by letter or email; an additional four comments were received after January 15, 2003, but were accepted as late comments. Public meetings, consisting of a two- to- three- hour informational "open house," were held in seven communities in New Mexico and Texas, between November 6, 2002, and January 6, 2003. A total of 40 people attended these open house events.

During the comment period, Camino Real Administration received 10 additional requests for information about El Camino Real de Tierra Adentro National Historic Trail, including requests for information on the auto tour route and the availability of classroom teaching resources. These requests are not included here as comments on the adequacy of the draft plan.

All letters and emails submitted through the mail or through the website, and all comments contributed during the open house events were reviewed and considered in preparation of the proposed Comprehensive Management Plan and Final Environmental Impact Statement (FEIS). Comments which addressed the adequacy of the draft CMP/EIS received a response. Comment contributors are listed in Table 17. Each commentor contributing a unique set of comments was assigned a unique comment number. Each comment may contain a number of salient points; these are identified through the assignment of subletter "a," "b," and so on. Eighteen identical comments were submitted by different individuals and combinations of individuals representing a number of small businesses and private concerns. In Table 17, these comments are given a single comment number, and each contributor is noted in the table.

The comments received from the public during the comment period were summarized and abstracted for presentation here. Each of the comments, summarized by salient point, are addressed in turn in our responses. Comment letters received from local, State, and other Federal agencies are printed in their entirety in Chapter 5, pages 128-155. Copies of all comment letters and emails are available for viewing at the NPS Old Santa Fe Trail Building, Camino Real Administration Office, 1100 Old Santa Fe, Trail, Santa Fe, New Mexico.

Commentors may track their comments by identifying their comment numbers, including subletters, in **Table 17**, and finding the appropriate comment and response in the text section following **Table 17**.

As noted previously, the Preferred Alternative presented in the draft has been brought forward, with minor modifications, as the Proposed Plan. We have continued to use the term "Preferred Alternative" in our responses here, as well as elsewhere in this document to stay as consistent with the language used in the draft as possible.

TABLE 17 COMMENTS AND RESPONSES

Comment Date No.		Name and Organization	
1a-b	1/23/2003	Homer Milford , New Mexico Energy, Minerals and Natural Resources Dept., Santa Fe, NM	
2a	1/7/2003	Robert D. Lawrence, Chief, Office of Planning and Coordination, United States Environmental Protection Agency, Dallas, Texas	
3a-dd	1/11/2003	Joy Poole, Director, El Camino Real International Heritage Center, New Mexico State Monuments	
4a-e	2/11/2003	Jan Biella and Elizabeth Oster, New Mexico State Historic Preservation Division, Santa Fe, NM	
5	12/4/2002	Joy E. Nicholopoulos, Field Supervisor, U.S. Fish and Wildlife Service, New Mexico Ecological Services Field Office, Albuquerque, NM	
6	7/31/2002	Robert, Marina, and Jennifer Barr Ardovino, Ardovino's Desert Crossing	
7	10/8/2002	Mike Vandeman	
8	10/25/2002	Alice Alexander, Tribal Historic Preservation Officer, Pawnee Nation of Oklahoma	
9	11/6/2002	Richard Whipple, Algodones, NM	
10	11/6/2002	Scott O'Mack	
11	11/12/2002	John Chapman, Albuquerque, NM	
12	11/17/2002	Thomas P. Lowry, Woodbridge, VA	
13	11/22/2002	Harry D. Early, Governor, Pueblo of Laguna, Laguna, NM	
14	11/22/2002	Gary Williams, Coordinator, Pass of the North El Paso Community Foundation, El Paso, TX	
15	11/25/2002	Michael L. Olsen, Colorado Springs, CO	
16a-c	12/11/2002	Julie Kay Smithson, London, OH	
17	12/14/2002	Peggy Bogart, Las Cruces, NM	
18	1/6/2003	Mary Ann Connelly, Taos, NM	
19	1/6/2003	Lloyd Rivera, President, Camino Real North, Taos, NM	
20	1/7/2003	Jim and Linda Kimmons, Taos, NM	
21a-m	1/7/2003	Beth L. Ortiz, Business Manager, El Llano Company, Española, NM	
	1/7/2003	Richard P. Cook, President, Española Transit Mix Company, Española, NM	

Commen No.	nt Date	Name and Organization
21a-m	1/7/2003	Six employees of Organ Sand and Gravel Co., Organ Sand and Gravel, LLC, Organ, NM
	1/7/2003	John R. Yates, Organ Sand and Gravel, LLC, Organ, NM
	1/7/2003	Louis Gonzales, Shamrock Mining LLC, Reno, NV
	1/9/2003	Richard P. Cook, President, Associated Asphalt and Minerals, Santa Fe, NM
	1/9/2003	Scott Wilson, Vice-President, R&R Roadrunner Parking Inc., Albuquerque, NM
	1/9/2003	Rex P. Wilson, President, C & W Land Development Enterprises, Inc., Albuquerque, NM
	1/9/2003	Steve Bradham, Vice-President, Home Building Systems, LLC, Albuquerque, NM
	1/10/2003	Kelly Armstrong, President, Copar Pumice Company, Española, NM
	1/10/2003	Richard P. Cook, President, Española Mercantile Company, Española, NM
	1/10/2003	Richard P. Cook, President, La Cienega Estates Corp., Española, NM
	1/10/2003	Donna M. Concannon, Ojo Caliente, NM
	1/10/2003	Kelly Armstrong, Secretary/Treasurer, Cook's Home Center, Inc., Española, NM
	1/11/2003	Andrew Ceballes, Project Manager, RICO Paving Company, Española, NM
	1/12/2003	Richard P. Cook, Española, NM
	1/12/2003	Shirley A. Cook, Española, NM
	1/12/2003	Richard C. and Beth L. Ortiz, Santa Cruz, NM
22a-c	1/10/2003	Jose J. Varela Lopez, Santa Fe, NM
23a-b	1/10/2003	David T. Kirkpatrick, Las Cruces, NM
24a	1/10/2003	A. P. Vigil, Hatch, NM
25	1/10/2003	Jay Wier, Las Cruces, NM
26	1/11/2003	Louann C. Jordan, El Rancho de las Golondrinas, Santa Fe, NM
27a-ff	1/13/2003	Peter Mackeness, El Camino Real del Norte, Taos, NM
28	1/14/2003	Lonnie Marquez, Chairman, El Camino Real International Heritage Foundation
29a-q	1/14/2003	Teresa A. Conner and David W. Pierce, Albuquerque, NM
30a-I	1/14/2003	Tamara Lichtenstein, Secretary, Agua Fria Village Association, Santa Fe, NM
31a-o	1/15/2003	Teresa A. Conner, Land and Environmental Manager, LaFarge North America/LaFarge Southwest, Inc., Albuquerque, NM

Comme No.	ent Date	Name and Organization
32a-b	1/16/2003 Email	William Henry Mee, Agua Fria Village, Santa Fe, NM
33a-c	1/7/2003 Email	Judy Keeler, Secretary, Bootheel Heritage Association, Animas, NM
34	1/22/2003 Hand Delivery	Tamara Lichtenstein , Secretary, and Ramon Romero, Agua Fria Village Association, Santa Fe, NM
35a-c	3/4/2003 Postmark	Adolph Greenberg, Ethnographer, Miami University, Oxford, OH

COMMENTS AND RESPONSES - STATE AND FEDERAL AGENCIES

COMMENT 1a:

Chapter 3, p. 72: second paragraph - Fra Cristobal instead of Organ Mountains?

RESPONSE:

We have changed the text to read Fra Cristobal Mountains here.

COMMENT 1b:

Chapter 3. - Gives information on the Jornada to consider.

RESPONSE:

Thank you for this information. The history presented is an overview and not exhaustive. We will keep your comments on file for future reference.

COMMENT 1c:

Chapter 3. - Include founding of El Paso in historical narrative.

RESPONSE:

The historical information is an overview of the region's history only. We will keep your comment on file to use as we implement the plan and as further research takes place. The city and county of El Paso, Texas are very interested in participating in the trail plan and they have also noted strong interest in the Camino Real on the part of Juarez, Mexico which is the historic settlement of El Paso referred to in the comment.

COMMENT 1d:

Chapter 3, page 78. The railroad follows the Camino Real from La Bajada to El Paso.

RESPONSE:

The text has been changed to reflect this.

COMMENT 2:

The Environmental Protection Agency (EPA) classifies your Draft Environmental Impact Statement (EIS) and proposed action as "LO," i.e., EPA has "Lack of Objections" to the preferred alternative.

RESPONSE:

Noted.

COMMENT 3a:

Planning document appears to be a boiler plate format which might be acceptable for a historic trail that is 1) located totally within the United States, or 2) isn't a viable, living, or still traveled trail.

RESPONSE:

We have to follow various laws and regulations in the formulation of the Comprehensive management Plan/Environmental Impact Statement (CMP/EIS). However we have re-written parts of it to make it easier to read. It should be noted that we can only do a plan for the section of the trail designated as a national historic trail and that is the section of El Camino Real that is in the United States. While we have consulted with the National Institute for Anthropology and History (INAH) in Mexico about the plan, we will not be doing a plan for the section of the trail that lies in Mexico. That rightfully is for the Nation of Mexico. And while we do recognize that the trail is still being used today, our mandate is the National Trails System Act legislation and the Camino Real de Tierra Adentro legislation (See Appendixes A and B). Many of our partners, including the Camino Real International Heritage Center will be able to address such topics as you raise as they develop their educational and interpretive programs.

COMMENT 3b:

Urge consideration of technological potential for digital libraries for resource sharing and international research; "push the envelope" in terms of pertinent and germane cultural issues and in terms of technology capabilities.

RESPONSE:

This is a thoughtful suggestion for the future. Many items can be stored in a digital library format; however we will be mindful of copyright restrictions that will preclude more recent items.

COMMENT 3c:

The document is difficult to fully decipher in places and follow from written executive summary through the matrix. One of the acronyms (RMP) was undefined and there were references to federal perspectives and procedures that an ordinary citizen cannot fully comprehend.

RESPONSE:

Noted. We have rearranged and rewritten parts of the document and have added terms to the Glossary. The draft Glossary did include the acronym "RMP" (Resource Management Plan).

COMMENT 3d:

The New Mexico State Monuments position with regard to the relationship between the International Heritage Center and the National Historic Trail is that the Center was created as New Mexico's newest state monument for the sole purpose of serving as the official interpretive center for the trail in New Mexico. The State Monuments Division recommends that the draft management plan also acknowledge its (the Center's) role and function as the official interpretive center for the national historic trail through a cooperative agreement, certification, or amendment to the national trails act.

RESPONSE:

Noted. The plan names the Camino Real International Heritage Center as a focal point for the trail.

COMMENT 3e:

Executive summary, pg. V: tie five issues identified to the environmental table in comparisons of alternatives and impacts

RESPONSE:

The five issues are addressed throughout the table and the document.

COMMENT 3f:

Address opportunities for visitor services under Issues on page 8. Also, should have included historical issues such as migration and commerce- - people from Mexico are still following the trail of their ancestors in search of opportunities and the commercial trade in existence today between the two countries; issues should also acknowledge the trail as a living trail today.

RESPONSE:

The planning issues were identified during the initial scoping of the plan. "Visitor services, education, and/or recreation" is an issue under "How will trail management be integrated with tribal and other government agency and community plans?"

COMMENT 3g:

What appears to be missing is a contemporary goal that addresses economic development, international collaboration, and migration. Unlike all the other national historic trails, El Camino Real is a living, vibrant trail. It is still a trail of commerce, of migration, and a trail of evangelism (or cultural exchange). Collaborations with Department of Commerce and Immigration and Naturalization Service (INS) might be advisable. Add "internationally" to the second goal, and add a goal of supporting and/or promoting economic development and commercial opportunities as related to El Camino Real. Omissions of commerce and migration are troublesome given the historical importance of trade and commerce and the continuance of international commerce and trade today via North American Free Trade Agreement (NAFTA) today, and the fact that historically El Camino Real was a migration route and I- 25 serves today as a route of immigration. These are changing and evolving human issues but are viable characteristics of the trail and qualify for government protection.

RESPONSE:

While we recognize your suggestion as a worthy goal, we are limited by the National Trails System Act and the Camino Real legislation, neither of which identify economic development as a purpose of the legislation. However we recognize that many of our partners will be able to more effectively carry out the goals you outline above as an integral part of their already existing mission.

COMMENT 3h:

Page x: revise last sentence regarding local history to incorporate local history into a national and international historical and contemporary context. The last sentence could be expanded to include such things as car and computer games, bilingual tv.

RESPONSE:

We have changed wording to replace "documents" with "a variety of media." We do not see the existing wording as limiting, but as inclusive of local history and local history in a national and international historical context.

COMMENT 3i:

Pages 14-15: include digital library capabilities or identify them as a mechanism for delivery in Alternative C [editor's note: Preferred Alternative] - - Library of Congress, New Mexico State Library and Archives, INAH and Mexican archives can collaborate with NPS/BLM.

RESPONSE:

We will work with a number of entities to achieve a digital library working within the constraints of copyright law. Many items can be stored in a digital library format. However, we will be mindful of copyright restrictions that may preclude more recent items.

COMMENT 3j:

pages xiii- xiv: Many of the cultural facilities of New Mexico may not meet certification standards without financial assistance through the cost- share program; El Camino Real International Heritage Center exhibits plans should be passed before the Long Distance Trails office to identify potential shortcomings that may affect their certification potential, especially regarding Americans with Disabilities Act (ADA) compliance.

RESPONSE:

We will work with entities that want to be certified, so that we can achieve the goal together through a variety of means, including, but not limited to the Challenge Cost- share program. Camino Real Administration will work with El Camino Real International Heritage Center to insure that the Center meets certification requirements.

COMMENT 3k:

The economic analysis identifies primarily low-paying, service industry jobs under the impacts of the preferred alternative. The Hispanic and North American Indian communities will want better, higher wage jobs for their children. What about socio- economics for middle income residents in the US and Mexico? Cottage industries involving artisans and regional arts and crafts could also be identified and promoted in New Mexico, Texas, and Mexico. Place the entry-level tourism jobs currently identified in the preferred alternative into Alternative B, and outline higher paying administrative and managerial tourism jobs in the preferred alternative-tourism is the #2 industry in New Mexico. Economic development, NAFTA, or El Camino Real Trade could provide moderate income producing jobs.

RESPONSE:

The economic model used to estimate job creation impacts does not calculate the number of jobs created by type, but only as a total number of new jobs based on algorithms utilizing economic baseline data and assumed economic activity generation multipliers. Because of this, the plan cannot be adjusted to shift job types among alternatives. The net economic benefits, which are the net new jobs created, combined new sales generated, and total increased income and sales tax revenue generated by implementation of the preferred alternative, were calculated using the National Park Service developed "Money Generation Model" which is available on the NPS website. The model is useful in that it can quickly estimate the economic consequences of planning alternatives using area- specific baseline data and tailored assumptions on the input parameters. Baseline economic activity data were provided by the Sonoran Institute in association with the Bureau of Land Management in its 2002 publication "Economic Profile System" which provides a variety of latest available economic activity data for use in producing custom socioeconomic profiles for the United States in a consistent format for all geographic areas. Other locally variable input data such as average length of stay for tourists, average daily

tourist expenditures, state and local tax rates, and percent of non-local use were developed from publicly- available state and county economic and tourist data, and interviews with recreation and tourism officials.

The basic rationale for the economic model is that a certain input in terms of new money spent, new numbers of tourists attending a park, and other inputs have a multiplier effect on the local economy as those inputs directly and indirectly propagate through the local economy inducing subsequent economic activity to both serve the visitors, and to provide products and services to the local community supporting the increased park or recreation activity.

COMMENT 31:

Is the National Endowment for the Arts helping to define trails, as indicated on page 5, fourth paragraph?

RESPONSE:

The National Endowment for the Arts is a signatory to a Memorandum of Understanding (MOU) for the Administration and Management of National Historic and National Scenic Trails dated January 19, 2001. The MOU encourages long- term interagency coordination and cooperation to further the spirit and intent of the National Trails System Act by preserving and strengthening the visitor satisfaction, administration, management, protection, cultural enhancement, cooperation, partnerships, and funding of those lands and resources associated with the National Trails. A copy of that MOU is on file in the Camino Real Administration Office.

COMMENT 3m:

Is it possible to sign MOU's with the Department of Commerce, Economic Development extolling the merits of NAFTA and recognizing the historical commercial importance of El Camino Real and its potential for today?

RESPONSE:

It would not be appropriate for the Camino Real Administration to sign such an MOU. Many of our partners have existing missions which would allow them to enter into such MOU's, however.

COMMENT 3n:

Page 6, 6th bullet: insert "in hard copy or digitally" before "to learn more about"; don't understand 11th bulleted point.

RESPONSE:

We do not see the existing language as excluding any form of learning in any manner. We recognize there are many ways to learn and fear that by trying to list them all, we would inadvertently omit some. This visitor experience goal means that trail visitors will have the opportunity to meet and interact with local people whose lives have been affected by the trail.

COMMENT 30:

Page 7: add "electronic access capabilities" to end of discussion of interpretation and education

RESPONSE:

We support this option but see no wording that would limit or exclude this option.

COMMENT 3p:

Page 8: Issues to be resolved. Wording for first two paragraphs seems negative and pessimistic. Instead of perceiving them as problems to be resolved, consider them as issues for consideration and strive for a win- win situation within the limitations of the federal government/NPS/BLM.

RESPONSE:

We agree with you about the wording, but we are following definitions set by our agency guidance. We agree with your interpretation and essentially have tried to provide that philosophy throughout the document.

COMMENT 3q:

One of the planning issues should be: What opportunities are available to provide visitor services, education, or recreation.

RESPONSE:

The planning issues were identified during the initial scoping of the plan. "Visitor services, education, and/or recreation" is an issue under "How will trail management be integrated with tribal and other government agency and community plans?"

COMMENT 3r:

These issues should be added to the discussion of this trail: Borderland trail security; economic development, trade, and NAFTA; and immigration and migration

RESPONSE:

The issues identified are indeed important but outside of the scope of the National Trails System Act and the Act establishing El Camino Real de Tierra Adentro National Historic Trail.

COMMENT 3s:

Add "From what historical perspective do Native American tribes (sovereign governments) view the trail" to the two issues of "How will trail management be integrated with tribal and other government agency and community plans?" and "How do we incorporate international interest in the trail?"

RESPONSE:

The planning issues were identified during the scoping phase of the plan. However we do believe that the issues you propose are addressed explicitly in the plan in Chapter 2, Preferred Alternative, Description, and Preferred Alternative, State-level and Tribal Partners and Local-level Partners, and in Chapter 4, Environmental Consequences, North American Indians.

COMMENT 3t:

Discussion of state-level partners should identify state libraries, state archives, state monuments, and state historian divisions as well as historic preservation division of state government

RESPONSE:

The wording in this paragraph has been changed to indicate that a number of state agencies can participate in the plan.

COMMENT 3u:

Tribal governments omitted from discussion of partners on page 15.

RESPONSE:

The paragraph now reads "State-level and Tribal Partners." Tribal governments are now recognized in the text.

COMMENT 3v:

Consider creating a digital library on Camino Real as a partnered effort between three countries and numerous libraries and pertinent agencies.

RESPONSE:

Noted. This suggestion will be explored in the future through partnerships.

COMMENT 3w:

Auto Tour route can follow Highway I from about mile marker 90 northward towards Socorro.

RESPONSE:

The auto tour route does follow State Highway No. 1 from just north of Truth or Consequences to Socorro.

COMMENT 3x:

What are the certification criteria? Are the criteria for high potential sites listed or is each site situational and situational criteria have yet to be determined? Will rectifying "incomplete historic documentation" require original and possibly sponsored research?

RESPONSE:

National historic trails identify high- potential historic sites and segments. The general characteristics of high- potential sites and segments are set out in Chapter 2, Continuing Management Guidance. In general, these sites and segments provide an opportunity to interpret the historic significance of the trail, and are characterized by the presence of visible historic remnants, scenic quality, and relative freedom from intrusion. Those portions of the trail that are under federal ownership are recognized as official protection components of the NHT. Privately- owned high- potential historic sites and segments can also be recognized through the site certification process. In addition, as indicated in Chapter 2, in the section on Site Certification, interpretive facilities such as El Camino Real International Heritage Center can also be considered as candidates for certification. The certification program is one of the most important ways in which federal administering agencies can foster partnerships with non-federal landowners through-

out the trail corridor. Certification agreements are written and agreed upon by the private landowner and the Camino Real Administration Office to preserve, interpret, and provide for public access to high- potential historic sites and segments. The certification program is an entirely voluntary one; although property owners can benefit from the availability of challenge cost- share funds, agency expertise, and the increased awareness of their resources by the public, property owners are not obliged to enter into certification agreements. A sample certification agreement is in Appendix I. Text has been added to Chapter 2, Site Certification, to clarify the certification program.

COMMENT 3y:

Page 36: can the reference to the location in the Jornada be tied to one of the maps, or the appropriate Field Office for BLM identified? Is this the trail north of the Jornada between the future El Camino Real International Heritage Center and Fort Craig or is it some other property in the Jornada?

RESPONSE:

Because the proposed projects are still in the conceptual stage, locations have not been fixed or identified on the maps. We have identified which BLM Field Office area they are located in. The trail referred to is along the historic Camino Real and not a trail between El Camino Real International Heritage Center and Fort Craig.

COMMENT 3z:

Page 39: Although the emphasis will be on the southern part of the trail, the whole trail will be interpreted by the Center. Suggest revising the last sentence of this section to read: "The heritage Center is another example of a joint government project and is therefore a separate project from the NHT. It would serve as an officially recognized or designated interpretive center (focal point for trail related interpretation and education) with emphasis on the southern portion of the trail.

RESPONSE:

We have updated the language in this paragraph to indicate that the Heritage Center has been built and will be open to interpret the trail soon. The language of the text has been altered to recognize that construction is nearly complete at the Camino Real International Heritage Center. The text now reads: "Camino Real Administration would not construct or operate facilities. The BLM and the Museum of New Mexico State Monuments Division are developing a new interpretive facility south of Socorro, New Mexico, the Camino Real International Heritage Center, that will offer interpretive media and educational programs about the trail. The Heritage Center is a separate project from the NHT but will serve as a focal point for trail-related interpretation and education, with emphasis on the southern portion of the trail."

COMMENT 3aa:

Page 40: Insert section on Digital Libraries here or with resources or web sites.

RESPONSE:

We see no language here that would limit the use of digital libraries or web sites. Many items can be stored in a digital library format however we will be mindful of copyright restrictions that will preclude more recent items. We will work with a number of entities to achieve a digital library working within the constraints of copyright law.

COMMENT 3bb:

Heritage Tourism: Include National Heritage Area as another potential example after heritage tourism programs.

RESPONSE:

Noted.

COMMENT 3cc:

Page 43- - Include Digital Libraries under Inventory and Research, and again on Page 44 under Interpretive Media

RESPONSE:

We see no language here that would limit the use of digital libraries or web sites. Many items can be stored in a digital library format however we will be mindful of copyright restrictions that will preclude more recent items. We will work with a number of entities to achieve a digital library working within the constraints of copyright law.

COMMENT 3dd:

No mention of prehistoric trade, especially the importance of salt and other trade goods as documented in published archaeological literature; also no mention of missionaries, women, and Indians who are affiliated with the trail.

RESPONSE:

The discussion concerning Ethnographic Resources and Archeological and Historic Resources is an overview only and not a comprehensive review of the subject headings. For a more comprehensive view see the sources in the selected bibliography.

COMMENT 4a:

Supports Preferred Alternative.

RESPONSE:

Noted.

COMMENT 4b:

We strongly recommend that you consider creating a plan and/or programmatic document that will serve to coordinate all of the necessary procedures for cultural resources management planning, including (but not limited to) compliance with Section 106 of the National Historic Preservation Act (NHPA) and, where applicable, Texas and New Mexico state laws.

RESPONSE:

Both BLM and NPS now have programmatic agreements or their equivalent, in place with the appropriate federal agencies charged with compliance with the National Historic Preservation Act (NHPA) that detail how these agencies will carry out their NHPA responsibilities. While we do not anticipate developing additional programmatic agreements, we will work with Texas and New Mexico State Historic Preservation Officers to create a plan, which may be in the form of a Memorandum of Understanding, for accomplishing the coordination of all necessary procedures.

COMMENT 4c:

Add State Cultural Preservation Laws to text.

RESPONSE:

Camino Real Administration will comply as appropriate with the state laws; your list of State Cultural Preservation Laws has been added to our files.

COMMENT 4d:

Change wording in Chapter 4, Environmental Consequences - to wording suggested in letter for "North American Indians" on pages 102, 112, and under "Comparison of Impacts."

RESPONSE:

Wording in this section now includes the following: Tribal consultation will be ongoing throughout the development and management of El Camino Real facilities, and any concerns identified by tribes will be taken into consideration. The goals of such consultation will be to avoid or mitigate any impacts or effects that may be identified.

COMMENT 4e:

Change Wording on page 102, Preferred Alternative - Cultural Resources (Archeological/Historical) to the wording suggested in letter.

RESPONSE:

Text in this section now reads: The impacts from both Alternatives B and the Preferred Alternative may have a neutral or positive impact upon the North American Indian tribes associated with El Camino Real.

During implementation of the Preferred Alternative, additional consultation with affected tribes may lead to positive impacts by providing them with the opportunity to present their stories from the tribal point of view in exhibits and documents. Tribes that participate in the voluntary certification of sites and segments would be eligible for technical assistance and challenge cost- share monies for preservation, interpretive exhibits, and signage.

Where developments take place (roadside pullouts and interpretive wayside exhibits as proposed in the Preferred Alternative), a site-specific analysis would take place to ensure that resources are not disturbed, or if resources would be impacted, proposed mitigation measures would take place in consultation with the tribes.

COMMENT 5a:

US Fish and Wildlife Service Cons. # 2- 22- 03- I- 050. We look forward to reviewing the preconstruction environmental assessments for projects resulting from the trail.

RESPONSE:

Noted.

COMMENT 5b:

We strongly encourage the possible wildlife improvement projects in the Jornada del Muerto and Santa Fe River Canyon areas because improved natural habitats would attract native wildlife species that originally occurred along the trail.

RESPONSE:

Noted.

COMMENTS AND RESPONSES - PUBLIC COMMENTS

COMMENT 6:

Carlos Caraveo, geologist/archaeologist, Sunland Park, informed our family of his theory that the original crossing of Don Juan de Oñate could not have been near the present- day Hart's Mill/La Hacienda Restaurant site, but must have been to the west of Mt. Cristo Rey. His documentation consisted of historic maps, recent satellite images, early settlers recounts, which suggested that the pre- Caballo and Elephant Butte Dam Rio Grande would not have been traversable in early Spring, and therefore the most likely route would have taken Oñate and his party to the west of the Sierra de Los Muleros, today's Mt. Christo Rey. His satellite images showed a trail, visible in the 1980s. Documentation materials enclosed with this comment. Also, we would like to suggest some additional recognition opportunities: a memorial plaque on the Sunset Patio at Ardovino's Desert Crossing and a miniature, walkable map of Camino Real on an acre of land below the Sunset Patio, with landscape design and gardener assistance provided.

RESPONSE:

We would be glad to consider any documented research or publications detailing the theory of an alternate location of the crossing. We will keep your implementation suggestions for the future on file.

COMMENT 7:

Protect wildlife and wildlife habitat by restricting mountain bikes, bicycles, in-line skates, scooters, and strollers to paved roads and designated paved bike paths; do not allow bikes and other vehicles on non-paved trails, including Camino Real.

RESPONSE:

Camino Real Administration will work to protect wildlife and wildlife habitat where such habitat occurs in association with Camino Real National Historic Trail (NHT) resources (identified high-potential sites and route segments and associated viewsheds). Under Alternative A, the 'no- action" alternative, the public would have the same access to trail resources on federally-managed lands as they now enjoy; under Alternative B and the Preferred Alternative, trail resources will be managed to ensure adequate protection and to enhance interpretation and education opportunities. Trail resources will be protected through identification and documentation; through a trail promotion effort to increase public awareness; through the efforts of the Trail Association; through cooperative management agreements and the certification program for resources on non-federally-managed lands; and, potentially, through the efforts of

volunteers and site steward- type programs. Projects that may impact trail resources will be reviewed on a case- by- case basis for potential adverse impacts and will be designed to avoid or mitigate these impacts.

COMMENT 8:

Very old Pawnee Nation oral history says we migrated from Mexico, we have no idea where we actually traveled through. We only know we come from the south and have some rather loose ties to the Aztec people, we don't know when we came from "the South," nor do we know the areas we traveled. The Pawnee Nation has no known burial sites, ancient village, sacred, or religious sites in Texas or New Mexico.

RESPONSE:

Thank you. Noted.

COMMENT 9:

Will auto tour route follow original road or 4th St. through Albuquerque? Original Camino Real was on west side of river; didn't cross to east until Angostura ("the narrows"). May want to mark stage coach stop on Las Colonias in Algodones and place "original trail" signage on Las Colonias. Make sure signage is clear about when following original route and when deviating for auto tour.

RESPONSE:

The auto tour route follows route 313 to Corrales Road to Rio Grande Blvd, to Route 47 in Albuquerque.

COMMENT 10:

The description of Valverde in Appendix E cites many references that do not appear in the bibliography.

RESPONSE:

The bibliography in the plan will be retitled "A Selected Bibliography." The full bibliography of over 40 pages will be posted on the website <elcaminoreal.org>.

COMMENT 11:

The route designation does not fit with my research.

RESPONSE:

If you would care to share your research with us, we will add it to our project files at the Camino Real Administration office, National Park Service Long Distance Trails Group, Santa Fe. The definition and routing of El Camino Real de Tierra Adentro National Historic Trail were set in the National Historic Trail Feasibility Study for El Camino Real de Tierra Adentro, completed by a study team of the National Park Service in 1997 (National Park Service, National Historic Trail Feasibility Study/Environmental Assessment, El Camino Real de Tierra Adentro. U.S. Department of the Interior, National Park Service, March 1997. On file at the National Trails System Office - Santa Fe). Legislation (Appendix A) establishing El Camino Real de Tierra Adentro as a National Historic Trail in Section 3, paragraph 2 (A) states the lim-

its of the trail as running from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico as generally depicted on the maps" in the 1997 feasibility study.

While the period of significance as recognized by the legislation establishing El Camino Real NHT is 1598-1882, there is nothing to preclude interpretation of the Camino Real both before and after that period.

COMMENT 12:

The Comprehensive Management Plan/Environmental Impact Statement (CMP/EIS) draft is impressive; it represents terrific amount of work and I would not know how to improve on what you have done. Consider the 370 Civil War court- martials as a potential publication about the trail.

RESPONSE:

Thank you for your comment. We will keep in mind your work on the court-martials and share this information with appropriate sites.

COMMENT 13:

Suggest that you meet with the Pueblo of Laguna NAGPRA Committee at your convenience.

RESPONSE:

We met with the Pueblo of Laguna NAGPRA Committee on January 29, 2003.

COMMENT 14:

Suggestions for future implementation.

RESPONSE:

Noted; will keep on file.

COMMENT 15:

Stress the role of the Rio Grande in interpretation and along the auto tour route. Provide access to the river.

RESPONSE:

Thank you. This is an excellent suggestion that we will keep on file to implement as we move into the operational phase of the trail. At some point in the future a long-range interpretive plan will be done that will identify subjects like this.

COMMENT 16a:

There is no discussion of the relationship between short- term uses of man's environment and the maintenance and enhancement of long- term productivity. The document lacks sufficient discussion of impacts on physical, biological, social and economic aspects of the human environment.

RESPONSE:

The existing environmental conditions are described in Chapter 3, Existing Environment, which is based on currently available information, and which provides a basis from which to estimate impacts associated with continuing current management practices and/or implementing the limited number of projects on federally-managed lands described in the Preferred Alternative. Aspects of the environment, including the human environment, described here include the following topics: North American Indians, Archeological/ Historical Resources, Energy and Minerals, Livestock-grazing, Land and Realty Uses, Recreation/Visitor Experience/Interpretation, Scenery, Socio-economics/Social Values/Environmental Justice, Vegetation/Soils/Noxious Weeds/Water, and Wildlife. The relationship between short-term activities, or "short- term uses of man's environment" and long- term productivity are examined in Chapter 4, Environmental Consequences. Several types of impacts are discussed, including direct impacts, indirect impacts, cumulative impacts, irreversible and irretrievable commitment of resources, and unavoidable adverse impacts. The impacts of continuing the current management practices as well as implementing a limited number of projects on federally-managed lands are summarized in the Executive Summary, Comparison of Impacts, and detailed in Chapter 4.

COMMENT 16b:

The plan should include a thorough and complete economic impact analysis.

RESPONSE:

The economic analysis included in the document is appropriate for the actions presented.

COMMENT 16c:

I support Alternative A: No Action. Opening a trail along an international border rife with drug trafficking and other crime such as murder and robbery, is not in the best interest of the American people.

RESPONSE:

Noted.

COMMENT 17:

The draft plan has no discussion of relationship between short- term uses of man's environment and the maintenance and enhancement of long- term productivity. It lacks sufficient discussion of impacts on physical, biological, social and economic aspects of the human environment. The plan should include a thorough and complete economic impact analysis. No Off Highway Vehicle (OHV) roads or trails should be closed on any public lands; along Camino Real, no need to close roads and trails to OHV travel to accommodate estimated 900-5500 trail visitors per year. No private lands should be integrated into this trail.

REPONSE:

The existing environmental conditions are described in Chapter 3, Existing Environment, which is based on currently available information, and which provides a basis from which to estimate impacts associated with continuing current management practices and/or implementing the limited number of projects on federally-managed lands described in the Preferred Alternative. Aspects of the environment, including the human environment, described here include the following topics: North American Indians, Archeological/Historical Resources,

Energy and Minerals, Livestock- grazing, Land and Realty Uses, Recreation/Visitor Experience/Interpretation, Scenery, Socio- economics/Social Values/Environmental Justice, Vegetation/Soils/Noxious Weeds/Water, and Wildlife. The relationship between short- term activities, or "short- term uses of man's environment" and long- term productivity are examined in Chapter 4, Environmental Consequences. Several types of impacts are discussed, including direct impacts, indirect impacts, cumulative impacts, irreversible and irretrievable commitment of resources, and unavoidable adverse impacts. The impacts of continuing the current management practices as well as implementing a limited number of projects on federally- managed lands are summarized in the Executive Summary, Comparison of Impacts, and detailed in Chapter 4.

No OHV roads or trails are currently marked for closure; however, routes or areas on Bureau of Land Management (BLM) administered lands may be closed to unauthorized vehicles where protected archeological and historic sites and trail route segments would be negatively impacted by vehicular traffic.

There will be little or nor federal acquisition of private lands under this plan. Acquisition would be on a willing- seller basis. Private land and resource owners may opt to take part in the high- potential site and route segment certification program if they wish, but this program is entirely voluntary for private property owners.

COMMENT 18:

The Camino Real extends beyond the limits of Oñate's journey to Taos and beyond. Extend the designated trail to Taos, and extend interpretation for educational purposes to include heritage from ancient hunters and trappers through Indians, Hispanic, and Anglo.

RESPONSE:

The definition and routing of El Camino Real de Tierra Adentro National Historic Trail were set in the National Historic Trail Feasibility Study for El Camino Real de Tierra Adentro, completed by a study team of the National Park Service in 1997 (National Park Service, National Historic Trail Feasibility Study/Environmental Assessment, El Camino Real de Tierra Adentro. U.S. Department of the Interior, National Park Service, March 1997. On- file at the National Trails System Office - Santa Fe). Legislation (Appendix A) establishing El Camino Real de Tierra Adentro as a National Historic Trail in Section 3, paragraph 2 (A) states the limits of the trail as running from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico as generally depicted on the maps" in the 1997 feasibility study.

While the period of significance as recognized by the legislation establishing El Camino Real NHT is 1598-1882, there is nothing to preclude interpretation of the Camino Real both before and after that period.

COMMENT 19:

Taos hosted a 2- day reception for the with Camino Real Colloquium- - does this indicate, then, that Taos is part of the federal designation- - Mexico City to San Juan Pueblo to Taos? If not, it should be. Also, we were not informed about the 2- day activities in Taos that included 8 key planners. Why?

RESPONSE:

While related by subject matter, the colloquium and the National Historic Trail are two different projects. We regret that you were not contacted for the events in Taos, however, the colloquium is a separate project, coordinated by the National Park Service (NPS), the Bureau of Land Management (BLM), the Mexican National Institute for Anthropology and History (INAH), and others, including community members from Taos, and outreach for that ongoing, annual project is handled separately from that which we have been doing as part of the trail planning effort.

The question of whether the trail continued to Taos or not was first raised during the feasibility study 1995-1997. After public input and consideration of those comments, it was decided that the definition that a Camino Real went from Spanish Capital to Spanish Capital was the most correct for purposes of the National Historic Trail. Research was conducted in numerous archives in New Mexico, Mexico, and Spain to come up with that definition. There has been no first- hand or primary evidence that has surfaced to date to indicate differently.

COMMENT 20:

Would like to see more research conducted on issue of trail extension to Taos; do not appear to have considered evidence for trail ending in Taos.

RESPONSE:

The question of whether the trail continued to Taos or not was first raised during the feasibility study 1995-1997. After public input and consideration of those comments, it was decided that the definition that a Camino Real went from Spanish Capital to Spanish Capital was the most correct for purposes of the National Historic Trail. Research was conducted in numerous archives in New Mexico, Mexico, and Spain to come up with that definition. There has been no first- hand or primary evidence that has surfaced to date to indicate differently.

COMMENT 21a:

The scope of the Environmental Impact Statement (EIS) does not take into account existing rights, such as mining, oil and gas claims, and how those rights would be affected by the designation of this trail. The "goals" of the EIS do not take into consideration active mining, oil, gas claims and grazing leases. Are "takings" being considered on private land and private interest holdings- - will trail's designation prohibit development of an interest in an area and if so, will the owner of that interest be compensated for the loss? Although the plan states that "grandfathered and existing rights will be recognized, no discussion is made as to how those rights will be preserved. The preferred alternative does not discuss how "existing rights" will be recognized and preserved or what impact preferred alternative will have on existing rights. How will "existing rights" be honored? How will Alternative B affect "existing rights"? There is no discussion of energy and mineral resources development and development rights under "purpose/need for action" or relationship to legislation /BLM/NPS policies, plans and programs"; the potential for mineral development along the trail has not been equally considered or valued.

RESPONSE:

Under all alternatives, surface disturbing operations authorized under an existing Federal material sale contract, mineral lease, and the surface management regulations under the Mining Law would be allowed to continue under the terms and conditions of the authorizing instrument. That is, existing operations, including mining and energy development, will continue as

authorized before designation of the trail (see Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals). Similarly, existing livestock-grazing operations on public lands will continue with no reductions and limited additional restrictions. Operations on an existing contract, lease, or mining claim causing new surface disturbance within the proposed VRM Class II areas will be subject to the VRM classification objectives; new range improvement and/or construction projects in areas where the VRM classification has been changed will need to be mitigated to meet visual resource management guidelines (see Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals and Livestockgrazing). The impacts to mining, energy development, and grazing through implementation of Alternative B are summarized in the Executive Summary and detailed in Chapter 4, Environmental Consequences: Alternative B: Energy and Minerals and Livestock-grazing,). These impacts would be identical to those detailed for Alternative A, the "no- action" alternative that continues current management practices. The proposed Comprehensive Management Plan/Environmental Impact Statement has been developed to establish objectives, policies, processes, and management actions needed to fulfill the preservation and public use goals for El Camino Real de Tierra Adentro NHT within the multi- use mission of the BLM. The potential for mineral development along the trail is described in Chapters 3, Existing Environment and 4, Environmental Consequences.

COMMENT 21b:

Initial scoping failed to identify how to treat existing rights, such as mining, oil and gas claims, as an issue.

RESPONSE:

This was not an issue raised during the scoping meetings. Nonetheless, the plan states that existing rights will be protected.

Under all alternatives, surface disturbing operations authorized under an existing Federal material sale contract, mineral lease, and the surface management regulations under the Mining Law would be allowed to continue under the terms and conditions of the authorizing instrument. That is, existing operations, including mining and energy development, will continue as authorized before designation of the trail (see Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals). Similarly, existing livestock-grazing operations on public lands will continue with no reductions and limited additional restrictions. Operations on an existing contract, lease, or mining claim causing new surface disturbance within the proposed VRM Class II areas will be subject to the VRM classification objectives; new range improvement and/or construction projects in areas where the VRM classification has been changed will need to be mitigated to meet visual resource management guidelines (see Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals and Livestockgrazing). The impacts to mining, energy development, and grazing through implementation of Alternative B are summarized in the Executive Summary and detailed in Chapter 4, Environmental Consequences: Alternative B: Energy and Minerals and Livestock-grazing. These impacts would be identical to those detailed for Alternative A, the "no- action" alternative that continues current management practices. The proposed Comprehensive Management Plan/Environmental Impact Statement has been developed to establish objectives, policies, processes, and management actions needed to fulfill the preservation and public use goals for El Camino Real de Tierra Adentro NHT within the multi- use mission of the BLM. The potential for mineral development along the trail is described in Chapters 3, Existing Environment and 4, Environmental Consequences.

COMMENT 21c:

Support Alternative A or B. Alternative A attempts to balance all interests associated with the El Camino Real Trail. The preferred alternative considers only the interests of those who do not favor energy or mineral development in the area. Alternative B balances all interests along Camino Real trail, not just those of cultural resource specialists. Under these Alternatives (A and B), the auto tour route will be accessible to anyone in any type of vehicle unlike preferred alternative that develops Point of Rocks and other remote pull outs and visitor areas that would only be accessible by those few who drove high clearance vehicles without trailer. Preferred Alternative incurs significant administration costs and is designed to preclude mineral and oil/gas development, especially the sand and gravel operations that create good jobs and provide materials that benefit all New Mexicans.

RESPONSE:

Alternative A is the No Action alternative required to be considered in all environmental documentation. Alternative B proposes some resource protection actions that would limit or discourage public visitation and impact on high potential historic sites and route segments. Energy or mineral development would be affected along less than 2.5% of the length of the trail. The auto tour route follows paved all- weather roads and does not go through the Upham - Point of Rocks area. The proposed developments there would be accessible via the gravel county road which normally a sedan pulling a trailer could negotiate. The kiosks proposed at each end of the county road would describe the road surface and indicate when road conditions may be unsuitable for some classes of vehicles.

COMMENT 21d:

Because the majority of the trail passes through private lands, it appears that the integrity of the trail as the El Camino Real trail could easily be compromised because the NPS and BLM have management control over less than a third of trail length. The "Resource Protection" section refers to energy and mineral development as being an incompatible use, but mineral development and the preservation of historic and cultural resources have been in balance in the development of other historic sites. A very large portion of cultural/historic research and data collection is funded by mineral developers, in the state of Nevada and other development areas

RESPONSE:

Much cooperation will need to take place between the public and private sector to preserve and interpret the trail. The plan does not call energy and mineral development "incompatible" but does identify protection measures, including changes to the Visual Resource Management (VRM) classifications applied to several sections of the trail under federal management. These new classification assignments will require new, surface- disturbing projects in these sections to meet the VRM guidelines. These VRM classification changes are intended to protect the historic character of some landscapes crossed by the National Historic Trail.

COMMENT 21e:

Future development of Interstate 25 and several state highways along the El Camino Trail will require material from gravel pits and there is no consideration in the EIS for highway development.

RESPONSE:

The development of gravel pits is not precluded under any of the proposed alternatives presented in the plan. The single most abundant and valuable mineral resource along the trail cor-

ridor- aggregate- occurs along the entire length of the trail. Each new proposed activity on federally- managed land, including sand and gravel operations, will be reviewed on a case- by- case basis; additional VRM Class II restrictions will affect less than 2.5% of the length of the trail in New Mexico and are not expected to have any appreciable effect on access to sand and gravel resources for highway construction and development.

COMMENT 21f:

Certification: Protection of properties on private lands will be achieved through certification--what does this term mean and what restrictions will be placed on private lands by certification?

RESPONSE:

National Historic Trails identify high- potential historic sites and segments. Those portions of the trail that are under federal ownership are recognized as official protection components of the NHT. Privately- owned high- potential historic sites and segments can also be recognized through the site certification process. The certification program is one of the most important ways in which federal administering agencies can foster partnerships with non-federal landowners throughout the trail corridor. Certification agreements are written and agreed upon by the private landowner and the Camino Real Administration Office to preserve, interpret, and provide for public access to high- potential historic sites and segments. The certification program is an entirely voluntary one; although property owners can benefit from the availability of challenge cost- share funds, agency expertise, and the increased awareness of their resources by the public, property owners are not obliged to enter into certification agreements. A sample certification agreement is in Appendix I. Text in Chapter 2, under the heading of Site Certification, has been amended to clarify the certification process and program.

COMMENT 21g:

The EIS does not address impact on air quality from fugitive emissions from increased visitor travel on dirt roads along trail corridor. The development of the preferred alternative will significantly increase fugitive emissions along the dirt road from the Upham exit to the proposed Point of Rocks Visitor Center and will increase the potential for soil erosion and sediment production, contrary to the "high- priority goals" identified under Existing Environment, Water/Air Quality. Have impacts to the air quality along the auto tour route been considered? What type of modeling has BLM used to examine these impacts? If visitation increases from 900 to 5,500 visits annually, what will be the impact from traffic fugitive emissions from dirt roads along the trail route? The document includes no consideration of erosion from trails and biking along the trail, and no discussion about the impact to ground water or surface water or noxious weed introduction due to increased use. The EIS says more detailed environmental analysis for specific trail projects will follow in appropriate environmental documents--shouldn't that information be included here for each individual trail project proposed?

RESPONSE:

Although the Camino Real trail corridor crosses nine counties in Texas and New Mexico, travel along this corridor will occur primarily on existing, paved, all- weather roads, including Interstate 25, and a variety of smaller highways and roadways in both states. Trail- related travel along unpaved roads that parallel the trail, or that actually follow the trail itself will occur in Dona Ana and Sierra Counties, as visitors follow the trail through the Jornada del Muerto on county- maintained roads. While visitors will not be encouraged to take these roads, which are not part of the proposed auto tour route, vehicular travel along these unpaved roads may reach an estimated maximum of 5,500 visits (some 2,750 individual car trips) per year. Doña Ana

County, which has fewer than 15 miles of unpaved road that provides good access to the historic trail, has significant concerns about particulate air pollution as seasonal dust storms often bring the air close to or within air quality violations. Sierra County, which has about 40 miles of publicly- accessible, county- maintained gravel road paralleling the historic trail, does not have significant air quality concerns. Water quality concerns would primarily relate to erosion and sedimentation. Currently, the only water quality impaired streams identified by the New Mexico Environment Department (NMED) in the area are Caballo and Elephant Butte Reservoirs which have impaired warm water fishery uses. Probable causes include grazing, agriculture, atmospheric deposition and recreation and tourism activities other than boating.

Designation and development of the trail may result in increased vehicular traffic along unpaved, county maintained roads which could result in increased airborne PMIO particulate matter (dust), especially during dry periods. Dust abatement measures will be developed for the roads if PMIO particulate matter levels become problematic. The construction of pullout parking areas and hiking trails would remove vegetation and expose soils for a brief period of time, and so impact air and water quality for a brief time. These areas will be covered with gravel at the completion of the construction, and therefore will not contribute to long-term airborne PMIO levels in the areas. Water quality issues may be addressed with pavement, drainage control practices, timely revegetation of disturbed areas, or other best management practices, as appropriate. Dust abatement measures will be developed for the unpaved countymaintained roads if PMIO particulate matter levels become problematic.

The impacts of specific projects proposed for BLM publicly administered lands will be evaluated and addressed through Environmental Assessments (EAs) and Best Management Practices (BMPs) at the beginning of implementation for these projects. The project planning and EA/BMP development will consider and conform with existing agreements between BLM and appropriate state and county agencies for addressing non- point source water pollution issues, air quality, weed control efforts, and other natural resources, historic, and cultural resources. This response has been incorporated into the planning document in Chapters 3, Existing Environment, and 4, Environmental Consequences.

COMMENT 21h:

Public scoping for EIS began with notice of availability in Federal Register on October 18, 2002, and comment period comments are not reflected in this document.

RESPONSE:

Public scoping began with the Notice of Intent published in the Federal Register, May 18, 2001, Vol. 66, No. 97, page 27682- 27684. Published therein was notice of the times and locations of public meetings. A press release detailing the public meetings was also sent out to the news media in New Mexico and West Texas. The location of those meetings and additional public meetings are noted in Chapter 5, Table 13. Issues and concerns identified during the public scoping period in 2001 are reflected in the draft document and this document in Chapter 1, Purpose/Process/Issues. Comments received after the release of the draft document on October 18, 2002 are reflected in the final document. See especially Chapter 5, Consultation/Coordination, which includes comments on the draft received during the public comment period between October 18, 2002 and January 15, 2003 (as well as four comments received after January 15, 2003), as well as our responses to those comments.

COMMENT 21i:

No cost comparisons are given in "comparison of alternatives" -- what is impact to the taxpayer? "Acquisition or exchange by willing sellers where lands could be effectively managed" language in "Resource Protection" section of "Comparison of Alternatives" suggests BLM intends to acquire lands through purchase -- what would be the costs? No costs are identified with administering the trail; preferred alternative identifies a significant amount of administration -- what are the costs?

RESPONSE:

At present, Federal funding requests associated with El Camino Real are focussed on preservation, protection, interpretation, and education efforts for federally-managed trail components and resources and the development of partnerships with non-federal resource owners and managers to effect preservation, protection, interpretation, and education programs for nonfederally-managed trail components. No funding requests are anticipated for land acquisition or purchase at this time, and no costs for land acquisition can be identified at present. Administration costs for El Camino Real de Tierra Adentro are addressed in Chapter 2, Alternatives: Preferred Alternative: Description: Preferred Alternative: Administration: Annual Operating Costs. Based on 2002 dollars, the estimated annual operating costs, at fully operational levels, would be approximately \$475,000. These funds would provide for co-administrators from NPS and BLM, as well as administrative support and interdisciplinary support, including interpretation and resource management. This budget would support the certification program, cooperative agreements, technical assistance, partner support, travel, Challenge Cost-Share projects, and special projects such as mapping and media production. Trail marking, brochure development and printing, newsletters, and other publication materials would also be supported. The Camino Real Administration is not expected to reach fully operational levels for a number of years and Camino Real Administration budgets for any given year will be subject to the same funding constraints that impact every Federal program.

COMMENT 21j:

The plan has no discussion of resources values of the energy and minerals in the area. Document states "Restrictions on lease development could result in an operation not drilling at the most geologically desirable location or time period." This statement suggests the planners do not understand the development of mineral resources: there is no reason to drill in areas that are less than geologically favorable. In addition, this statement seems designed to preclude any geologic investigations. Reductions in mineral material activity along Camino Real within the new VRM Class II designations does a disservice to the mining heritage of the area - the El Camino Real trail brought miners and prospectors to the area and that heritage will be minimized or eliminated from Camino Real under these management practices. What type of mineral resources will be unavailable and what is their cost? What is the economic impact of reclassifying 60,000 acres to VRM Class II? The document has no discussion of the loss of royalties to BLM from mineral resource management; no discussion concerning loss of mineral tax base-- mineral resource extraction would produce better paying jobs in the area than hospitality- based.

RESPONSE:

Existing mineral resources activities on federally- managed lands near the projects proposed in this document are detailed in Chapter 3, Table II. As the table indicates, only 4 mineral operations, 3 of which are aggregate operations, are located near the proposed turnouts, short interpretive trails, and wayside exhibit features described in Chapter 2 under Preferred Alternative: Visitor Experience: Recreation. Most of the active operations, which are primarily aggregate

operations, are concentrated in the urban areas of El Paso, Las Cruces, Albuquerque, and Santa Fe (see Table 10 for a complete listing of current Federal mineral resource activities in the counties through which El Camino NHT runs). Only 1 of 66 active mining claims (1.5%) and only 3 of 15 active aggregate operations in Doña Ana and Sierra Counties fall within the proposed VRM II classification area. Forty- eight deposits of sand, gravel, cinder, scoria, and stone are currently being worked in the trail corridor (on federally-managed lands and on other lands). Most of these aggregate operations are much closer to urban areas, between El Paso, Texas, and Las Cruces, New Mexico, and between Belen, New Mexico, and Santa Fe, New Mexico. Surface disturbing operations authorized under an existing Federal material sale contract, mineral lease, and the surface management regulations under the Mining Law would be allowed to continue under the terms and conditions of the authorizing instrument. Operations on an existing contract, lease, or mining claim causing new surface disturbance within the proposed VRM Class II area would be subject to the VRM objectives. VRM Class II objectives may require alternation of new Federal mineral development activities but would not necessarily preclude such activities. Changing a VRM classification is not a withdrawal of lands from mineral development, so such an action would not preclude geologic investigations.

COMMENT 21k:

What is the impact of designation of VRM Class II on private lands or existing rights? What is the economic impact of re- classifying 60,000 acres to VRM Class II? How will conversion of lands from VRM Class III and Class IV to Class II impact private land in- holdings and development on private lands in the area?

RESPONSE:

Amending the White Sands, Mimbres, and Taos Resource Management Plan (RMP) Visual Resource Management (VRM) classifications will result in an increase of 99,774 federallymanaged acres in VRM Class II. The areas proposed for re- classification consist of approximately 8.5 linear miles of trail corridor, or slightly under 2.5% of the total length of the route of El Camino Real within New Mexico. Because there is such a high level of uncertainty as to what economic effect, if any, adoption of the preferred alternative and consequent changes in VRM classification will have on mineral development or other economic activities on these federally- managed lands, no meaningful economic analysis is possible. The VRM classes and their objectives are described in Appendix H. Class II management objectives are to retain the existing character of the landscape by keeping the level of change to the landscape low. Management activities (including resource extraction or range improvements, for example) may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. With regard to "existing rights," operations on an existing grazing allotment, contract, lease, or mining claim causing new surface disturbance within the proposed Class II area would be subject to the VRM objectives. Operations that do not cause new surface disturbance would continue as before.

Visual Resource Management classifications apply only to federally-managed lands. None of the three alternatives would impose restrictions on private land development nor would private landowners be precluded from developing their land as authorized under local development codes.

COMMENT 211:

Auto tour route: Visitors reading the travel condition advisory planned for the Upham exit pullout will be advised that travel on the county road is not recommended for trailers over 15 feet, motor homes, or low- clearance vehicles, therefore visitors are limited to those who will be traveling in four- wheel drive pickup trucks. It appears from this description that the trail is being developed for "special interests" and not the general public, because the average visitor will be traveling by car (a low clearance vehicle), in a motor home, or will be towing a travel trailer; the development of the auto tour route described in Alternative B would give most benefit to the common visitor.

RESPONSE:

The auto tour route follows paved all- weather roads. In the Upham location it follows Interstate - 25. The kiosk and travel information at Upham would warn those venturing off the auto tour route of the conditions of the county gravel road. Usually this road could be followed to the proposed interpretive sites in cars and low clearance vehicles. The warnings would be appropriate for wet weather travel on the road.

COMMENT 21m:

In "Relationship to Legislation/BLM and NPS Policies...", need to add mineral resources to discussion of management plans for various resources and programs

RESPONSE:

The plan integrates continuing management guidance for the management of public lands and resources as directed by federal laws, regulations, policy and guidelines, Executive Orders, and planning documents developed to focus on specific areas, resources, or uses, including mineral resources.

COMMENT 22a:

The Camino Real is important and NHT designation is appropriate.

RESPONSE:

Noted.

COMMENT 22b:

The proposed auto tour route in the La Cieneguilla and La Cienega areas is not advisable due to narrow, winding roads and because the current local traffic already exceeds the optimal level of service; increased traffic would exacerbate the safety of all motorists in these traditional communities. Signage and interpretive materials along I-25 and the frontage road in this area will provide more appropriate opportunities for explaining the history and significance of the traditional communities and how there were founded and evolved as a result of the Camino Real de Tierra Adentro. Also, increased visitation through promotion of the tour route and increased signage may lead to increased vandalism of rich archaeological sites in this area, which contains a wealth of petroglyphs. The presence of both federal land and identified petroglyphs have raised problems with trespass and vandalism already.

RESPONSE:

The auto tour route has been re-routed to the Interstate - 25 frontage road via NM 599 in the vicinity of La Cieneguilla and La Cienega to meet these concerns.

COMMENT 22c:

The Visual Resource Management (VRM) boundary in La Cieneguilla encloses private lands within the area of proposed restricted actions to preserve viewsheds. Private lands should not be included within the boundaries; the boundary as drawn suggests that private landowners will be precluded from developing their land as authorized under local development codes.

RESPONSE:

Visual Resource Management classifications apply only to federally-managed lands. None of the three alternatives would impose restrictions on private land development nor would private landowners be precluded from developing their land as authorized under local development codes. Map 5, Public Lands in the Santa Fe River Canyon Proposed for VRM Class II (Preferred Alternative) shows the proposed VRM Class II boundary as an irregular, relatively narrow polygon confined within the Santa Fe River canyon from just east of the community of La Bajada to just west of Cieneguilla. Private lands which fall within this polygon, but which are not affected by the VRM classifications applied to BLM- managed lands, are shown in light shading and BLM- managed lands are shown with a darker shading (Section 30, for example, is primarily private land; Section 31, immediately to the south, is primarily BLM- managed land).

COMMENT 23a:

Support the preferred alternative. The document is well organized and provides the information needed to comment on the proposed plan and the alternatives. The preferred alternative provides the educational opportunities to the public to learn about the El Camino Real. Yet, the plan still provides the necessary management to protect this valuable national resource.

RESPONSE:

Noted.

COMMENT 23b:

In the summer of 1996, I conducted a revisit survey of the El Camino between Upham and Aleman as part of the environmental studies for the proposed Southwest Regional Spaceport. The survey resulted in correcting the location of a crossing that was incorrectly plotted on the USGS map. The presence of earthen ramps and cut banks confirmed the correct location. We were able to follow the trail since it was clearly marked except for where it crossed low grassy flat areas. The report is titled Southwest Regional Spaceport: Archaeological Survey of the Proposed Upham Area Site, Human Systems Research, Inc. Staff, 1997, Human Systems Research Report Nos. 9510 and 9517. Maps and updated site forms are presented in the Appendix volumes

RESPONSE:

Thank you. This is an excellent resource and will be added to our bibliography. We also note that Mike Marshall recorded the same feature in his 1991 survey.

COMMENT 24:

Supports Alternative B, with option to rebuild AT&SF RR station at Engle as a monument to Railroaders and ranches who later used the Camino Real.

RESPONSE:

Noted; your suggestion has been added to our file of future implementation plans.

COMMENT 25:

Supports Alternative B.

RESPONSE:

Noted.

COMMENT 26:

El Alamo in wrong location on Map 3G; also Santa Fe County Road 56 mislabeled as 285 84.

RESPONSE:

Corrections have been made to Map 3G.

COMMENT 27a:

Trail route is from Vera Cruz, Mexico to Taos, NM ending in 3 places there.

RESPONSE:

The question of whether the trail continued to Taos or not was first raised during the feasibility study conducted in 1995-1997. After public input and consideration of those comments, it was decided that the definition that a Camino Real went from Spanish capital to Spanish capital was the most correct for purposes of the National Historic Trail. This definition is supported by research conducted in numerous archives in New Mexico, Mexico. There has been no first-hand or primary evidence that has surfaced to date to indicate differently.

The definition and routing of El Camino Real de Tierra Adentro National Historic Trail were set in the National Historic Trail Feasibility Study for El Camino Real de Tierra Adentro, completed by a study team of the National Park Service in 1997 (National Park Service, National Historic Trail Feasibility Study/Environmental Assessment, El Camino Real de Tierra Adentro. U.S. Department of the Interior, National Park Service, March 1997. On file at the National Trails System Office - Santa Fe). Legislation (Appendix A) establishing El Camino Real de Tierra Adentro as a National Historic Trail in Section 3, paragraph 2 (A) states the limits of the trail as running from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico as generally depicted on the maps in the 1997 feasibility study.

While the period of significance as recognized by the legislation establishing El Camino Real NHT is 1598-1882, there is nothing to preclude interpretation of the Camino Real both before and after that period.

COMMENT 27b:

Definition of "Camino Real" as used in the document is incorrect. Who determined definition?

RESPONSE:

The definition and routing of El Camino Real de Tierra Adentro National Historic Trail were set in the National Historic Trail Feasibility Study for El Camino Real de Tierra Adentro, completed by a study team of the National Park Service in 1997 (National Park Service, National Historic Trail Feasibility Study/Environmental Assessment, El Camino Real de Tierra Adentro. U.S. Department of the Interior, National Park Service, March 1997. On file at the National Trails System Office - Santa Fe). Legislation (Appendix A) establishing El Camino Real de Tierra Adentro as a National Historic Trail in Section 3, paragraph 2 (A) states the limits of the

trail as running from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico as generally depicted on the maps in the 1997 feasibility study.

While the period of significance as recognized by the legislation establishing El Camino Real NHT is 1598-1882, there is nothing to preclude interpretation of the Camino Real both before and after that period.

COMMENT 27c:

Suggests locations for Interpretive centers in Mexico and the U.S.

RESPONSE:

Noted.

COMMENT 27d:

Install vandal- proof signs and markers.

RESPONSE:

Noted; this suggestion will be retained in our files for reference as interpretive plans and signing plans are implemented.

COMMENT 27e:

The definition of Trail Significance of 1598-1882 is arbitrary and should be expanded.

RESPONSE:

The definition and routing of El Camino Real de Tierra Adentro National Historic Trail were set in the National Historic Trail Feasibility Study for El Camino Real de Tierra Adentro, completed by a study team of the National Park Service in 1997 (National Park Service, National Historic Trail Feasibility Study/Environmental Assessment, El Camino Real de Tierra Adentro. U.S. Department of the Interior, National Park Service, March 1997. On file at the National Trails System Office - Santa Fe). Legislation (Appendix A) establishing El Camino Real de Tierra Adentro as a National Historic Trail in Section 3, paragraph 2 (A) states the limits of the trail as running from the Rio Grande near El Paso, Texas to San Juan Pueblo, New Mexico as generally depicted on the maps in the 1997 feasibility study.

While the period of significance as recognized by the legislation establishing El Camino Real NHT is 1598-1882, there is nothing to preclude interpretation of the Camino Real both before and after that period.

The historic research conducted by the Spanish Colonial Research Center and others points to the period of 1598-1882 as the most significant for the trail. The date starts with Oñate's blazing the Camino Real through El Paso del Norte into New Mexico and ends with the completion of the railroad along the trail corridor. Earlier Indian trade routes did not follow exactly the Camino Real and the railroad changed the character of travel along the trail.

COMMENT 27f:

Why does plan only include Chihuahua in Mexico?

RESPONSE:

See Chapter 3, Existing Environment, State of Chihuahua, Mexico. The National Historic Trail ends at the U. S. - Mexico border. The discussion of Chihuahua was included because it is the closest Mexican state that may be impacted by trail actions in the U. S.

COMMENT 27q:

Why is the Oñate Center in Alcalde, NM not included in the plan.

RESPONSE:

The Oñate Center is mentioned on page 86 and has the potential for certification as an interpretive site if they wish to participate.

COMMENT 27h:

Why has only one International Heritage Center been planned, not more?

RESPONSE:

The planning for the International Heritage Center predates the designation of the National Historic Trail. It is a separate but closely related project between the Bureau of Land Management and New Mexico State Monuments. The preferred alternative as discussed on page 37 under Interpretation/Education proposes support for development of new facilities such as visitor center or museums by the private sector. This plan does not propose any new facilities. Instead, this plan calls for support and strengthening of existing programs.

COMMENT 27i:

Hold monthly meetings within communities to inform all publics.

RESPONSE:

Noted. This suggestion has been added to our files for reference during the development of implementation plans.

COMMENT 27j:

Can private for- profit organizations become involved?

RESPONSE:

Yes, for-profit organizations can become involved.

COMMENT 27k:

Why are BLM & NPS involved in time of down-sizing?

RESPONSE:

Legislation (P.L. 106-307, Appendix A) established El Camino Real de Tierra Adentro as a National Historic Trail. The Secretary of Interior (See Appendix C) directed the Bureau of Land Management and the National Park Service to plan for and administer the trail.

COMMENT 271:

Not enough emphasis is placed on the positive economic aspects of the historic trail corridor.

RESPONSE:

Although National Historic Trail designation has raised visitation to particular trails, the economic benefits of trail designation have yet to be quantified either in general, or for individual trails. As described in Chapter 4, Environmental Consequences/Preferred Alternative/Socioeconomics/Social Values/Environmental Justice, El Camino Real NHT can expect some increases in visitation as a result of the greater public awareness of this trail following designation. Increases in visitation are closely tied to the quality of public awareness and promotional programs; special events are particularly effective in raising awareness and visitation. Because these effects have not been quantified for other trails, however, and no good models exist for quantifying these effects for the Camino Real, the economic benefits that may accompany adoption of the Preferred Alternative or Alternative B cannot be estimated with any exactitude at this time.

COMMENT 27m:

Why is there emphasis on the BLM Taos Field Office if the trail (NHT) does not cross Taos County?

RESPONSE:

The BLM Taos Field Office covers Santa Fe and Rio Arriba counties. Each of these counties contain Trail resources.

COMMENT 27n:

Why isn't there an emphasis placed on Camino Real northern arterials?

RESPONSE:

The National Historic Trail as defined herein and designated in the enabling legislation ends at San Juan Pueblo.

COMMENT 270:

Why isn't there greater participation by Pueblo peoples?

RESPONSE:

A concerted effort has been made to meet with and involve tribal people in this planning process and the National Historic Trail. Several tribes have met with us and expressed interest and we will work with them and others who wish to participate now, or in the future.

COMMENT 27p:

What is the anticipated timeframe for the management plan?

RESPONSE:

Management plans typically guide management for 15 to 20 years.

COMMENT 27q:

How many staff and how much money is budgeted to date?

RESPONSE:

This is a difficult question because a number of agencies, offices, and personnel have worked on the plan and various aspects of the Camino Real over a period exceeding ten years. The preparation plan/project agreement for this planning effort identified a total cost of \$1,014,000 to complete the trail CMP/EIS. It is anticipated that the final cost will be below this figure.

COMMENT 27r:

Where in the management plan is there a priority schedule?

RESPONSE:

Implementation schedules are typically identified in yearly work plans. Priorities will also depend very much on partners as they wish to develop their trail resources.

COMMENT 27s:

Give credit and source for photos and illustrations.

RESPONSE:

Sources for photos and the historic illustrations are on file and available from the Camino Real Administration Office.

COMMENT 27t:

Is there a detailed budget plan?

RESPONSE:

Implementation schedules are typically identified in yearly work plans. Priorities will also depend very much on partners as they wish to develop their trail resources.

The budget estimate of \$475,000 noted in Chapter 2, Description: Preferred Alternative supposes full funding at an optimal operation. Once funded at a base level, budgets will be formulated each year in conjunction with the work plan.

COMMENT 27u:

Include in the glossary, Camino, Camino Real, pueblo, swale, trace, alignment, corridor, Bosque, carreta, SHPO, etc.?

RESPONSE:

These definitions have been added to the glossary.

COMMENT 27v:

The Bibliography is incomplete.

RESPONSE:

The title of the Bibliography has been changed to "Selected Bibliography" to more accurately reflect its contents. A forty- page bibliography is on file in the Camino Real Administration office and will be added to the website, elcaminoreal.org

COMMENT 27w:

Why were interested private groups left out of the planning process?

RESPONSE:

No one was intentionally left out of the process. A Notice of Intent advising the public of the development of the draft management plan and environmental impact statement was published in the Federal Register, May 18, 2001, Vol. 66, No. 97, page 27682-27684. Published therein was notice of the times and locations of public scoping meetings. Press releases detailing the schedule for public scoping meetings were also sent out to the news media in New Mexico and West Texas; the news media was also notified of additional meetings (see Chapter 5, Table 13 for a complete list). In addition to the public notification process, the Camino Real planning team also developed a mailing list with over 1300 names which was used to invite public participation and to distribute a newsletter and other mailings regarding the planning process. The public meeting schedule was also posted on our website, elcaminoreal.org. We regret that you did not see any of the public notices or news media publicity on the public meetings.

COMMENT 27x:

What are the clearly defined roles of the NPS and BLM as separate entities?

RESPONSE:

Since the BLM and the NPS are directed to jointly manage the trail, there are no separate roles for each agency. We are committed to joint administration of the trail.

COMMENT 27y:

Can the management plan be modified and can there be changes in content and form?

RESPONSE:

If the management plan were to be changed or modified in any significant way, another round of public involvement meetings and planning process would have to take place. However the plan is general enough to accommodate minor changes.

COMMENT 27z:

Because of the various jurisdictions isn't management of the trail rather complex, and are overlapping jurisdictions a problem?

RESPONSE:

Trail sites, segments, and other trail lands and programs will continue to be managed by the present managers. This plan proposes that the Camino Real Administration Office would administer the Trail Program, not manage the trail per se.

COMMENT 27aa:

Why isn't the Embudo La Raza Center, Historian Estevan Arellano, and the newspaper "El Camiante" not involved in the CMP?

RESPONSE:

These entities can choose to participate in the plan at any time. Mr. Arellano hosted a session and tour in the Camino Real Colloquium in October of 2002.

COMMENT 27bb:

Why are there no references to the book "La Vereda" or to the two books on the Old Spanish Trail by Ron Kessler?

RESPONSE:

The title of the Bibliography has been changed to "Selected Bibliography" to more accurately reflect its contents. A forty page bibliography is on file in the Camino Real Administration office and will be added to the website, elcaminoreal.org

The bibliography is only a selected bibliography and even the expanded bibliography only contains material that is primarily concerned with El Camino Real de Tierra Adentro.

COMMENT 27cc:

Why are the alternate branches from Santa Fe to San Juan Pueblo not described or shown on maps?

RESPONSE:

Although there were later variations of routes from Santa Fe to San Juan Pueblo (location of San Gabriel the Spanish capital), the route that existed from 1598 to 1609 when the capital was moved to Santa Fe, is the one shown on the maps. Once the capital moved to Santa Fe, the route to San Gabriel, no longer a Spanish capital, ceased to be a "Camino Real."

COMMENT 27dd:

Three different kinds of Auto Tour Routes needed. (1) Modern federal and State highways that parallel the historic trail. (2) State and local county roads that lie directly on top of or parallel the historic trail. (3) Remote sections of road on federal, state, and private lands that lie atop the actual trail.

RESPONSE:

See Chapter 2, Description: Preferred Alternative: Auto tour route. The auto tour route will be developed to "promote the trail, and to provide a 'user-friendly' avenue for visitors to find trail- related resources. This activity will occur on all- weather roads for two- wheel drive use year-round." The idea is to provide an introduction to trail resources, not auto access to all trail resources.

COMMENT 27ee:

Why are the grid lines on the Route maps crooked?:

RESPONSE:

The "grid lines" on the route maps accurately reflect the surveyed section boundaries.

COMMENT 27ff:

The Trail Logo is too small.

RESPONSE:

Noted.

COMMENT 28:

A resolution passed by El Camino Real International Heritage Center Foundation Board requests that the National Park Service/Bureau of Land management (NPS/BLM) draft management plan for the trail designate the El Camino Real International Heritage Center as the Official Center for the interpretation and enhancement of El Camino Real National Historic Trail. Full text of resolution on file, National Park Service El Camino Real National Historic Trail files.

RESPONSE:

El Camino Real International Heritage Center is being developed through a partnership between the New Mexico Bureau of Land Management and the New Mexico State Monuments Division of the Museum of New Mexico. The Center is recognized in this document as a focal point for providing visitor services, especially interpretation of trail- related themes and educational programs related to interpretive themes. El Camino Real de Tierra Adentro was added to the National Trails System by P.L. 106- 307 on October 13, 2000. The enabling legislation directs the BLM and the NPS to administer the national historic trail (NHT) according to the intent of Congress as expressed in the establishing legislation. The Center, while a major project for the BLM in partnership with the state of New Mexico, is not specifically mentioned in the legislation that added El Camino Real de Tierra Adentro to the National Trails System, and it is beyond the scope of this document to name the Center an "Official Center." The complementary missions of the NHT and the Center will ensure that these two elements of the federal involvement in Camino Real will have a close working relationship.

COMMENT 29a:

Although the CMP/EIS indicates public meetings were held, no one had seen notice of these meetings. Please review notification process.

RESPONSE:

A Notice of Intent advising the public of the development of the draft management plan and environmental impact statement was published in the Federal Register, May 18, 2001, Vol. 66, No. 97, page 27682-27684. Published therein was notice of the times and locations of public scoping meetings. Press releases detailing the schedule for public scoping meetings were also sent out to the news media in New Mexico and West Texas; the news media was also notified of additional meetings (see Chapter 5, Table 13 for a complete list). In addition to the public

notification process, the Camino Real planning team also developed a mailing list with over 1300 names which was used to invite public participation and to distribute a newsletter and other mailings regarding the planning process. The public meeting schedule was also posted on our website, elcaminoreal.org. We regret that you did not see any of the public notices or news media publicity on the public meetings.

COMMENT 29b:

No benefit in preserving the entire length of trail; to do so would lock up a significant amount of aggregate resources that are concentrated along the Rio Grande valley.

RESPONSE:

While the goal of the National Historic trail is to preserve, interpret, and provide for public access to the significant Camino Real resources, in reality that will be accomplished by cooperation with the private sector and many landowners. The trail proposal restricts no use on private lands and only affects extraction of aggregate resources on a small percentage of public lands.

Only about 25% of the trail falls on lands managed by federal agencies, including the BLM, the U.S. Fish and Wildlife Service, the U.S. Forest Service, and the U.S. Army Corps of Engineers, and most of these lands are far from the urban corridors between El Paso and Las Cruces and Belen and Albuquerque, where aggregate operations are currently concentrated. The BLM management will be guided in part by visual resource management objectives (VRM classifications) and by other continuing management guidance as described in this document; other federal lands will be managed in accordance with the guidelines established by the individual agencies. Furthermore, the proposed management plan affects potential aggregate resource operations adversely only on BLM- managed lands and only in those two areas where VRM classifications will change- some 8 miles along the trail in the Jornada del Muerto, where aggregate operations are relatively rare, and less than a mile along the Santa Fe River Canyon near the small community of La Cieneguilla, where no aggregate operations are currently working. The remaining three- quarters of the trail, around 300 miles, crosses private lands, Indian lands, or state lands; no changes in aggregate operations will be effected on these lands as a result of this management plan. Preserving and protecting trail resources along the majority of the trail will be pursued through partnerships and cooperative agreements with non-federal landowners and managers.

COMMENT 29c:

This proposal would lock up and eliminate use of significant amount of natural resources, used to build the infrastructure of the state. This is unjustified as proposed.

RESPONSE:

None of the identified alternatives would eliminate the extraction or use of natural resources used to build the infrastructure of the state. The proposed changes in VRM classification do not constitute a withdrawal from mineral development activities, so this would not "lock up" mineral resources. VRM Class II objectives may require alteration of new Federal mineral development activities but would not necessarily preclude such activities. This VRM classification is limited to fewer than 10 linear miles of the trail corridor, or less than 2.5% of its length. The classification should have little effect on the single most abundant, and valuable, mineral resource along the corridor- aggregate- that occurs along its entire length.

COMMENT 29d:

A large portion of the proposed trail is in private or Indian ownership. It is unlikely a majority of landowners would want to give or sell portions of their land for this purpose.

RESPONSE:

Private landowners and Indian tribes would have the opportunity to enter into certification agreements with the Camino Real Administration Office. This voluntary program provides the opportunity to preserve and share important Camino Real historic resources while retaining full ownership.

COMMENT 29e:

On page 4, trail mileages total 653 miles, while on page 3, Camino Real length is given as 404; these differences not explained until table 1, pg. 48.

RESPONSE:

Text clarifying trail mileage has been added to the planning document. It reads "Trail mileage totals 654.5 miles. This includes the 404 mile length of the trail, and variant or alternate routes that parallel other trail segments."

COMMENT 29f:

Chapter I, pg. 10: Planning Criteria: Include "concerns of those involved in mining activities or potential mining activities" in enumerating Planning Criteria.

RESPONSE:

Concerns of those involved in mining activities or potential mining activities are addressed in the sixth planning criterion identified in Chapter 1: "Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple- use plans for the specific area, in order to ensure continued maximum benefits from the land (Section 7 (a) (2))," [National Trails System Act, Appendix B.]

COMMENT 29g:

Chapter I, pg. 10- II: With all other planning efforts underway related to Camino Real, we object to another effort and duplicate efforts.

RESPONSE:

The planning efforts described are a variety of public and private ventures showing the popularity of celebrating the Camino Real in one manner or another. The National Historic Trail designation will assist in coordinating and providing information on but not duplicating these various activities.

COMMENT 29h:

Chapter I, pg. I7: Certification should be better explained, why would a landowner wish to do. Who would pay for certification what rules or regulations are used and who does the certification?

RESPONSE:

Many landowners are proud of and willing to preserve and share their qualifying Camino Real properties with the public. A certification agreement allows a wide variety of technical information to be shared with the certified property owner, allows the eligibility of challenge- cost share funding for projects on the certified property, and provides for a strong dialog between the landowner and the Camino Real Administration. Responsibility for costs associated with certification will be agreed upon during the certification process.

COMMENT 29i:

Chapter 3, Existing Environment: Geology, page 78: The Rio Grande valley is normally referred to as a rift valley, not a basin and range province.

RESPONSE:

The first paragraph of the Geology section has been amended to read: "The entire length of El Camino Real in New Mexico lies within the Rio Grande Rift. The Rio Grande Valley is the surface expression of the rift. The Rio Grande Rift zone lies within the larger physiographic feature known as the Basin and Range Province, bounded on the west by the Colorado Plateau, on the east by the Great Plains, and on the north by the Southern Rocky Mountains. The province occupies the southwestern and central parts of the state, extending northward to Taos County. The Province is over 200 miles wide in the south, narrowing northward to several miles wide in Taos County. It includes fault block mountains and plateaus; volcanoes and lava flows; and broad, flat alluvial plains. The Rio Grande Rift, a series of north- south parallel faults, occupies the western part of the province." More specific information regarding energy and mineral resources is detailed in Chapter 3, Existing Environment: Resource Uses: Energy/Minerals.

COMMENT 29j:

Discussion of potential economic deposits in Chapter 3, pg. 89-90 (Existing Environment: Resource Uses: Energy/Minerals) indicates significant number of mining/mineral operations within project area. These types of activities cannot be relocated.

RESPONSE:

The discussion in Chapter 3 includes all known mineral operations along the entire 400- mile long, 10- mile wide corridor considered in this analysis. Some forty- eight (48) deposits of sand, gravel, cinder, scoria, or stone are currently being worked along the corridor. Considering the large area involved, this level of activity probably cannot be considered to be a large, or significant number of operations. Most of the active operations (primarily aggregate operations) are concentrated in the vicinity of El Paso, Las Cruces, Albuquerque, and Santa Fe. Outside these urban areas, there are only a few active mineral operations in the trail corridor.

COMMENT 29k:

The third paragraph, Chapter 4, page 103-104 states "Restrictions on lease development could result in an operator not drilling at the most geologically desirable location..." In the exploration for energy and mineral resources the point is to drill in "the most geologically desirable location." If you are not allowed to do that then there is no point in conducting the drilling. One cannot pick and choose where energy and mineral resources are located. They are where they are, and they cannot be moved. This implies that the intent is to preclude all drilling activities within the VRM Class II areas.

RESPONSE:

Chapter 4 details the environmental consequences of adopting one of the proposed alternatives. Under the Preferred Alternative, some BLM- managed lands would be reclassified from VRM Class III or IV to VRM Class II. VRM Class II objectives may require alteration of new Federal mineral development activities but would not necessarily preclude such activities. In certain cases, a drill rig may be positioned to minimize its impact on the viewshed; instead of drilling directly down, the drill may be angled to intersect the deposit of interest. The goal of such a practice would be to hide the drill rig behind some feature so it is not visible from the trail. While this may not be feasible in all cases, these are the kind of options that would be explored in sections of the trail with restrictive Visual Resource Management classifications.

Amending the White Sands, Mimbres, and Taos Resource Management Plan (RMP) Visual Resource Management (VRM) classifications will result in an increase of 99,774 federally-managed acres in VRM Class II. The areas proposed for re- classification consist of approximately 8.5 linear miles of trail corridor, or slightly under 2.5% of the total length of the route of El Camino Real within New Mexico. The VRM classes and their objectives are described in Appendix H. Class II management objectives are to retain the existing character of the land-scape by keeping the level of change to the landscape low. Management activities (including resource extraction or range improvements, for example) may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape.

COMMENT 291:

Mineral materials qualities are specified by market; expense is determined in part by hauling distance. Increased costs, through increased hauling expense, will be passed along to the consumer.

RESPONSE:

Comment is an information statement or opinion; no response needed.

COMMENT 29m:

Chapter 4, pg. 107: Give justification for claim that expenditure of \$535,000 per year for administration and implementation activities will generate a net benefit of \$1.19 million dollars and 36 jobs per year. There should be a discussion of what contributes to "net benefit."

RESPONSE:

Net economic benefits, which are the net new jobs created, combined new sales generated, and total increased income and sales tax revenue generated by implementation of the Preferred Alternative, were calculated using the NPS- developed "Money Generation Model" which is available on the NPS website. The model is useful in that it can quickly estimate the economic consequences of planning alternatives using area- specific baseline data and tailored assumptions on the input parameters. Baseline economic activity data were provided by the Sonoran Institute in association with the Bureau of Land Management in its 2002 publication "Economic Profile System" which provides a variety of latest available economic activity data for use in producing custom socioeconomic profiles for the United States in a consistent format for all geographic areas. Other locally variable input data such as average length of stay for tourists, average daily tourist expenditures, state and local tax rates, and percent of non-local use were developed from publicly- available state and county economic and tourist data, and interviews with recreation and tourism officials.

The basic rationale for the economic model is that a certain input in terms of new money spent, new numbers of tourists attending a park, and other inputs have a multiplier effect on the local economy as those inputs directly and indirectly propagate through the local economy inducing subsequent economic activity to both serve the visitors, and to provide products and services to the local community supporting the increased park or recreation activity.

COMMENT 29n:

Chapter 4, pg. 107, 4th paragraph: Visitation question has not been fully analyzed and needs work to be of any value.

RESPONSE:

The visitation discussion is based on an estimate, which is based in turn on the general experiences other designated national historic trails. Because there is no single way to quantify visitation, which can include visiting any one of a trail's certified sites, or driving the auto tour route, or some combination of these visitation strategies, visitation estimates are still not available for trails that have been in operation for over ten years.

COMMENT 290:

Chapter 4, pg. 107, 5th paragraph: Types of jobs to be generated by this proposal are minimum wage at best and are a meager contribution to the economic improvement of any area; would not "enhance the economic stability of communities in the ESA"; 36 jobs would be scattered among a number of counties, so any contribution to a specific county would be unnoticeable. We are only talking about a few low-paying jobs here; these will not help these areas avoid "future social costs from continued economic problems."

RESPONSE:

This comment cannot be definitively responded to since it states an opinion. It is true that the total number of jobs to be created in the overall labor market is relatively small, and that most of them will probably be lower paying service industry jobs. However, in discussions with local leaders during preparation of the analysis, they stressed that such jobs were important in that they provide entry-level employment opportunities for persons, particularly in rural areas with very limited job markets that they would not otherwise have. Thus, the new jobs would in fact contribute to a small but measurable degree to economic stability of the communities (again, this effect would be most pronounced in the smaller job markets) and avoidance of future social costs by providing employment opportunities where they are badly needed. The text in paragraph 5 is clear on that point.

COMMENT 29p:

The discussion in Chapter 4, pg. 116: "Unavoidable Adverse Impacts" fails to include loss of potential natural resources due to their removal from access on public lands and the potential economic benefit derived therefrom.

RESPONSE:

The impact of the Preferred Alternative on Energy and Minerals resources is discussed in Chapter 3, Existing Environment: Resource Uses: Energy/Minerals and Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals. Potential economic deposits of sand and gravel, cinder, scoria, and stone occur throughout the trail corridor. Mining of a particular deposit depends upon its proximity to a viable market, usually an urban

area or a highway construction project. Forty- eight of these deposits are currently being mined. Other minerals currently being extracted along the corridor include gypsum, perlite, and pumice. There is no current, active mining of hardrock and related minerals within the corridor. This plan proposes no withdrawals and no mining operations are precluded.

COMMENT 29q:

Prefer Alternative A.

RESPONSE:

Noted.

COMMENT 30a:

Agua Fria Village Association has been instrumental in protecting the Camino Real historic route as it passes through Agua Fria Village in a number of ways, including discouraging "improvement" projects by the New Mexico State Highway and Transportation Department in the early 1990s; petitioning for transfer of jurisdiction of the length of the trail through the village and its outlying lands (approximately four miles along Agua Fria Road, previously Highway 599, and now County Route 66); working with Santa Fe County to install safety devices (stop signs) and complete a drainage, pavement, and sewer project through the villages while preserving the traditional narrow width of the historic route and improving pedestrian facilities along the route. The Agua Fria Village Association consider that preservation and improvement of adequate pedestrian access, compliant with Americans with Disabilities Act (ADA) requirements, was crucial to maintaining the trail's historic pre- combustion- engineera use and function for generations to come. In addition, the Association is working with other groups to protect and improve the environment of the Santa Fe River throughout the village and to establish walking trails along sections of the river, including Santa Fe River Park at San Isidro Crossing, where the original cold springs were located and where the community well exists today.

RESPONSE:

The Agua Fria Village Association is to be commended for its efforts in protecting the historic Camino Real. We look forward to working with you in the future.

COMMENT 30b:

Several sites within the Village of Agua Fria are known to be of historic, archaeological or traditional cultural importance, including the Wofford residence, east of Agua Fria School, and the Bruce Cooper House, on the Camino del Alamo branch of Camino Real approximately one block from the Lopez Lane/Agua Fria intersection. This latter property is currently for sale and might well serve as an interpretive or study center. See attached report by Jane Whitmore.

RESPONSE:

The report by Jane Whitmore, The Traditional Village of Agua Fria, dated May 12, 1983 is on file in the Camino Real Administration Office. It describes and documents a number of structures in Agua Fria. Should any of the owners of the structures wish to explore certification, this document will provide excellent baseline information.

COMMENT 30c:

The Bruce Cooper House, on the Camino del Alamo branch of Camino Real approximately one block from the Lopez Lane/Agua Fria intersection, is currently for sale and might well serve as an interpretive or study center.

RESPONSE:

Page 39 of the draft describes how Interpretive Facilities will be dealt with. We would be pleased to work with the community should they decide to develop a center here.

COMMENT 30d:

The Camino del Alamo, with the eastern section called La Junta del Alamo, merits protection as it is the northernmost remaining section of this branch of the trail and has not been excavated, paved, or studied for its archaeological resources. This section of the trail merits further study. Why did the trail branch here? Were both branches used simultaneously or at different times of the year or in different years altogether, or did the choice of route depend on travellers' plans to visit other sites along a given route? What landmark might have existed here to mark the trail's divide?

RESPONSE:

We agree this section merits further study. The questions you raise would be generally applicable to other portions of the trail.

COMMENT 30e:

At the juncture of Camino del Alamo with La Junta del Alamo is a small triangle of land, approximately 1/5 acre, claimed by a non-resident owner of adjacent undeveloped land. I would like to see this piece protected and identified as the juncture of two branches of the Camino Real trail network, marked by an appropriate sign and perhaps by appropriate public artwork.

RESPONSE:

With study, this could be a high-potential historic site and therefore eligible for certification.

COMMENT 30f:

The large, mostly unexcavated LAII archaeological site located mainly on land owned jointly by the Archdiocese of Santa Fe and San Isidro Parish is an extremely important local resource.

RESPONSE:

This site could be a high-potential historic site and eligible for certification.

COMMENTg:

Additional archaeological resources have been identified in a preliminary study across the river from LAII on the former Lamereaux family tree farm. A state archaeologist has stated that significant archaeological resources are likely to be found on the farm site, including human burials. We are concerned that the resources on this site will not receive adequate protection or oversight should the property be purchased for intensive development. The lower portion of the property may be considered of great importance to the story of local Pueblo habitation

along the river and the trail, while the area of LAII, on the south side of the river, contains resources pertaining to both Pueblo and Spanish use and habitation. Existing structures on the farm, while in need of repair, have great potential for a variety of public and private uses. This property is on the market and a group of local residents is exploring the possibility of purchase for preservation and appropriate types of continued use. This property is adjacent to the County open space parcel purchased.

RESPONSE:

There are a variety of protection strategies for properties and we will be glad to with you those we are aware of and place you in touch with preservation groups.

COMMENT 30h:

The existing adobe church of San Isidro has been recognized and posted with one of the state's Camino Real historic signs, as has Agua Fria School, which contains a WPA- era adobe building.

RESPONSE:

Noted. These are possible high-potential historic sites.

COMMENT 30i:

On the north side of the Santa Fe River overlooking Agua Fria Village are the village park, cemetary, fire station, and a La Familia clinic; State Senator Nancy Rodriguez has obtained funds to build a community center in the same area. This area is under threat of annexation by the city of Santa Fe and the local residents hope that the County will amend the boundaries of the Agua Fria Traditional Historic Village to re-incorporate these village assets into its existing zoning boundaries

RESPONSE:

Noted.

COMMENT 30j:

The Acequia Madre, which travels through the city of Santa Fe, ends up in Agua Fria Village along the north boundary of a housing development that is being constructed adjacent to the Agua Fria School. The acequia is enclosed between fences between the private development and the school playground. It is a cultural and historic resource crucial to the existence of the Spanish community of Agua Fria established along the Camino Real trail centuries ago, and as such it requires continued protection and maintenance. It would be desirable to obtain funds to create a short, publicly accessible path with appropriate information signage along the acequia's north edge, using land currently within the school playground. This project should be carried out with the school's and private development's cooperation and participation, and keep in mind these entities' security needs to limit hours of access as appropriate, perhaps by creating a small, perpetually accessible information center adjacent to the limited access trail. The design and development of this project could be carried out with the participation of the school's student population, with appropriate professional direction.

RESPONSE:

We would be glad to work with the community and the school to preserve this piece of Acequia.

COMMENT 30k:

Documents were supplied for Camino Real Administration Office files.

RESPONSE:

These documents are on file in the Camino Real Administration Office.

COMMENT 301:

On page 186, the trail is described as forking west of Agua Fria, when in fact it forked west of the church and springs, but within the Agua Fria landholding and farming area.

RESPONSE:

The narrative describes the journey of Zebulon Montgomery Pike on the road south of Santa Fe. We appreciate your work in this area and realize that more research needs to be conducted on the various routes in this area.

COMMENT 31a:

Although the CMP/EIS indicates public meetings were held, for many in our industry (construction materials including sand and gravel) this plan came as a complete surprise. No one had seen notice of these meetings and it was simply an accident that we found out the draft document had been issued. Please review notification process.

RESPONSE:

A Notice of Intent advising the public of the development of the draft management plan and environmental impact statement was published in the Federal Register, May 18, 2001, Vol. 66, No. 97, page 27682-27684. Published therein was notice of the times and locations of public scoping meetings. Press releases detailing the schedule for public scoping meetings were also sent out to the news media in New Mexico and West Texas; the news media was also notified of additional meetings (see Chapter 5, Table 13 for a complete list). In addition to the public notification process, the Camino Real planning team also developed a mailing list with over 1300 names which was used to invite public participation and to distribute a newsletter and other mailings regarding the planning process. The public meeting schedule was also posted on our website, elcaminoreal.org. We regret that you did not see any of the public notices or news media publicity on the public meetings.

COMMENT 31b:

No benefit in preserving the entire length of trail; to do so would lock up a significant amount of aggregate resources that are concentrated along the Rio Grande valley.

RESPONSE:

Amending the White Sands, Mimbres, and Taos Resource Management Plan (RMP) Visual Resource Management (VRM) classifications will result in an increase of 99,774 federally-managed acres in VRM Class II. The areas proposed for re- classification consist of approximately 8.5 linear miles of trail corridor, or slightly under 2.5% of the total length of the route of El Camino Real within New Mexico. The VRM classes and their objectives are described in Appendix H. The reclassifications should have little effect on aggregate, the single most abundant and valuable mineral resource along the corridor. Visual Resource Management classifications apply only to federally-managed lands. None of the three alternatives would impose

restrictions on private land development nor would private landowners be precluded from developing their land as authorized under local development codes.

COMMENT 31c:

On page 4, trail mileage totals 653 miles, while on page 3, Camino Real length is given as 404; these differences not explained until table 1, pg. 48.

RESPONSE:

Text clarifying trail mileage has been added to the planning document. It reads "Trail mileage totals 654.5 miles. This includes the 404 mile length of the trail, and variant or alternate routes that parallel other trail segments."

COMMENT 31d:

Chapter I, pg. IO: Planning Criteria: Include "concerns of those involved in mining activities or potential mining activities" in enumerating Planning Criteria, Chapter I, pg. IO

RESPONSE:

Planning criteria were set during the scoping process; mining activities were addressed and taken into account at that time and are also discussed in the plan.

COMMENT 31e:

Chapter I, pg. IO- II: With all other planning efforts underway related to Camino Real, why initiate another effort and duplicate efforts?

RESPONSE:

The planning efforts described are a variety of public and private ventures showing the popularity of celebrating the Camino Real in one manner or another. The National Historic Trail designation will assist in coordinating and providing information on but not duplicating these various activities.

COMMENT 31f:

Chapter 1, pg. 17: What does certification really do? What criteria, rules or regulations are utilized in the certification process? Who does the certification?

RESPONSE:

National Historic Trails identify high- potential historic sites and segments. Those portions of the trail that are under federal ownership are recognized as official protection components of the NHT. Privately- owned high- potential historic sites and segments can also be recognized through the site certification process. The certification program is one of the most important ways in which federal administering agencies can foster partnerships with non- federal landowners throughout the trail corridor. Certification agreements are written and agreed upon by the private landowner and the Camino Real Administration Office to preserve, interpret, and provide for public access to high- potential historic sites and segments. The certification program is an entirely voluntary one; although property owners can benefit from the availability of challenge cost- share funds, agency expertise, and the increased awareness of their resources by the public, property owners are not obliged to enter into certification agree-

ments. A sample certification agreement is in Appendix I. The text under the "Preferred Alternative: Description" - Site Certification has been expanded to clarify the certification process and program.

COMMENT 31g:

Chapter 3, Existing Environment: Geology, page 78: The Rio Grande valley is normally referred to as a rift valley, not a basin and range province; expand this discussion and give more specific information regarding resources throughout valley.

RESPONSE:

The first paragraph of the Geology section has been amended to read: "The entire length of El Camino Real in New Mexico lies within the Rio Grande Rift. The Rio Grande Valley is the surface expression of the rift. The Rio Grande Rift zone lies within the larger physiographic feature known as the Basin and Range Province, bounded on the west by the Colorado Plateau, on the east by the Great Plains, and on the north by the Southern Rocky Mountains. The province occupies the southwestern and central parts of the state, extending northward to Taos County. The Province is over 200 miles wide in the south, narrowing northward to several miles wide in Taos County. It includes fault block mountains and plateaus; volcanoes and lava flows; and broad, flat alluvial plains. The Rio Grande Rift, a series of north- south parallel faults, occupies the western part of the province." More specific information regarding energy and mineral resources is detailed in Chapter 3, Existing Environment: Resource Uses: Energy/Minerals.

COMMENT 31h:

Chapter 3, pg. 89-90: discussion indicates significant number of mining/mineral operations within project area. With so much activity, is project viable?

RESPONSE:

Yes development of mining/mineral activities can be compatible with the National Historic Trail.

COMMENT 31i:

Chapter 4, page 103-104: Third paragraph states "Restrictions on lease development could result in an operator not drilling at the most geologically desirable location..." In the exploration for energy and mineral resources the point is to drill in "the most geologically desirable location." If you are not allowed to do that then there is no point in conducting the drilling. One cannot pick and choose where energy and mineral resources are located. They are where they are, and they cannot be moved.

RESPONSE:

What is referred to here is the usage of techniques such as slant drilling or directional drilling. In certain cases, a drill rig may be positioned to minimize it's impact on the viewshed; instead of drilling directly down, the drill may be angled to intersect the deposit of interest. The goal of such a practice would be to hide the drill rig behind some feature so it is not visible from the trail, and still be able to drill. While this may not be feasible in all cases, these are the kind of options that would be explored in sections of the trail with restrictive Visual Resource Management classifications.

COMMENT 31i:

Mineral materials qualities are specified by market; expense is determined in part by hauling distance. Increased costs, through increased hauling expense, will be passed along to the consumer through direct costs or increased taxes.

RESPONSE:

Comment is an information statement or opinion; no response needed.

COMMENT 31k:

Chapter 4, pg. 107: Give justification for claim that expenditure of \$535,000 per year for administration and implementation activities will generate a net benefit of \$1.19 million dollars and 36 jobs per year.

RESPONSE:

Net economic benefits, which are the net new jobs created, combined new sales generated, and total increased income and sales tax revenue generated by implementation of the Preferred Alternative, were calculated using the NPS- developed "Money Generation Model" which is available on the NPS website. The model is useful in that it can quickly estimate the economic consequences of planning alternatives using area- specific baseline data and tailored assumptions on the input parameters. Baseline economic activity data were provided by the Sonoran Institute in association with the Bureau of Land Management in its 2002 publication "Economic Profile System" which provides a variety of latest available economic activity data for use in producing custom socioeconomic profiles for the United States in a consistent format for all geographic areas. Other locally variable input data such as average length of stay for tourists, average daily tourist expenditures, state and local tax rates, and percent of non-local use were developed from publicly- available state and county economic and tourist data, and interviews with recreation and tourism officials.

The basic rationale for the economic model is that a certain input in terms of new money spent, new numbers of tourists attending a park, and other inputs have a multiplier effect on the local economy as those inputs directly and indirectly propagate through the local economy inducing subsequent economic activity to both serve the visitors, and to provide products and services to the local community supporting the increased park or recreation activity.

COMMENT 311:

You are assuming that because other national historic trails experienced an increase in visitation, the Camino Real will as well. This analysis needs statistical backup.

RESPONSE:

In general, the other trails that have been designated as National Historic Trails have experienced an increase in visitation; further, this increase in visitation has been correlated, at least anecdotally, with the quality of trail promotion programs instituted by the various trails. These increases have not been quantified systematically, however, and no statistical models can be applied at this point to predict the magnitude of economic benefit that will result from the increased visitation expected for Camino Real NHT.

COMMENT 31m:

Chapter 4, pg. 107, 5th paragraph: Types of jobs to be generated by this proposal are minimum wage at best and are a meager contribution to the economic improvement of any area; would not "enhance the economic stability of communities in the Economic Study Area (ESA);" 36 jobs would be scattered among a number of counties, so any contribution to a specific county would be unnoticeable. We are only talking about a few low-paying jobs here; these will not help these areas avoid "future social costs from continued economic problems."

RESPONSE:

This comment cannot be definitively responded to since it states an opinion. It is true that the total number of jobs to be created in the overall labor market is relatively small, and that most of them will probably be lower paying service industry jobs. However, in discussions with local leaders during preparation of the analysis, they stressed that such jobs were important in that they provide entry-level employment opportunities for persons, particularly in rural areas with very limited job markets that they would not otherwise have. Thus, the new jobs would in fact contribute to a small but measurable degree to economic stability of the communities (again, this effect would be most pronounced in the smaller job markets) and avoidance of future social costs by providing employment opportunities where they are badly needed. The text in paragraph 5 is clear on that point.

COMMENT 31n:

The discussion in Chapter 4, pg. 116: "Unavoidable Adverse Impacts" fails to include loss of potential natural resources due to their removal from access on public lands and the potential economic benefit derived therefrom.

RESPONSE:

The impact of the Preferred Alternative on Energy and Minerals resources is discussed in Chapter 3, Existing Environment: Resource Uses: Energy/Minerals and Chapter 4, Environmental Consequences: Preferred Alternative: Energy and Minerals. Potential economic deposits of sand and gravel, cinder, scoria, and stone occur throughout the trail corridor. Mining of a particular deposit depends upon its proximity to a viable market, usually an urban area or a highway construction project. Forty- eight of these deposits are currently being mined. Other minerals currently being extracted along the corridor include gypsum, perlite, and pumice. There is no current, active mining of hardrock and related minerals within the corridor. This plan proposes no withdrawals and no mining operations are precluded.

COMMENT 310:

Prefer Alternative A

RESPONSE:

Noted.

COMMENT 32a:

Provides history on Agua Fria Village.

RESPONSE:

Thank you. This information will be kept on file for reference at the Camino Real Administration Office.

COMMENT 32b:

Gives proposal for an Agua Fria Village Museum.

RESPONSE:

We would be glad to work with the village of Agua Fria as they develop a museum. Challenge Cost- Share funds may be available for this project or portions thereof.

COMMENT 33a:

Recommend adoption of Alternative A.

RESPONSE:

Noted.

COMMENT 33b:

The Draft EIS does not comply with the National Environmental Policy Act. It provides no information on the relationship between local short- term uses of man's environment and the maintenance and enhancement of long- term productivity.

RESPONSE:

The existing environmental conditions are described in Chapter 3, Existing Environment, which is based on currently available information, and which provides a basis from which to estimate impacts associated with continuing current management practices and/or implementing the limited number of projects on federally-managed lands described in the Preferred Alternative. Aspects of the environment, including the human environment, described here include the following topics: North American Indians, Archeological/Historical Resources, Energy and Minerals, Livestock-grazing, Land and Realty Uses, Recreation/Visitor Experience/Interpretation, Scenery, Socio-economics/Social Values/ Environmental Justice, Vegetation/Soils/Noxious Weeds/Water, and Wildlife. The relationship between short-term activities, or "short-term uses of man's environment" and long-term productivity are examined in Chapter 4, Environmental Consequences. Several types of impacts are discussed, including direct impacts, indirect impacts, cumulative impacts, irreversible and irretrievable commitment of resources, and unavoidable adverse impacts. The impacts of continuing the current management practices as well as implementing a limited number of projects on federally-managed lands are summarized in the Executive Summary, Comparison of Impacts, and detailed in Chapter 4.

COMMENT 33c:

The draft provides no information on the impacts of proposed actions on the physical, biological, social and economic aspects of the human environment. This should include a thorough and complete economic analysis.

RESPONSE:

The existing environmental conditions are described in Chapter 3, Existing Environment, which is based on currently available information, and which provides a basis from which to estimate impacts associated with continuing current management practices and/or implementing the limited number of projects on federally-managed lands described in the Preferred Alternative. Aspects of the environment, including the human environment, described here

include the following topics: North American Indians, Archeological/ Historical Resources, Energy and Minerals, Livestock- grazing, Land and Realty Uses, Recreation/Visitor Experience/Interpretation, Scenery, Socio- economics/Social Values/Environmental Justice, Vegetation/Soils/Noxious Weeds/Water, and Wildlife. The relationship between short- term activities, or "short- term uses of man's environment" and long- term productivity are examined in Chapter 4, Environmental Consequences. Several types of impacts are discussed, including direct impacts, indirect impacts, cumulative impacts, irreversible and irretrievable commitment of resources, and unavoidable adverse impacts. The impacts of continuing the current management practices as well as implementing a limited number of projects on federally- managed lands are summarized in the Executive Summary, Comparison of Impacts, and detailed in Chapter 4.

The economic analysis included in the document is appropriate for the actions presented. Economic impacts of the current management practices and the limited projects proposed for federally-managed lands are summarized in the Executive Summary and detailed in Chapter 4.

COMMENT 34:

Additional clarifications to letter from Lichtenstein of 1/14/2003: The list of documents supplied with the earlier letter were compiled by Hazel Romero, wife of Agua Fria Village Association President, Ramon Romero. Mrs. Romero works at the Fray Angelico Chavez History Library and her research resulted in the documentation attached to the previous letter. In addition, she created a slide show about Agua Fria which was shown at the History Library in the late 1990s. Mr. and Mrs. Romero have been instrumental in keeping a core of committed local volunteers active on behalf of Agua Fria as a neighborhood, a community, and a living historical entity. Mr. Romero is including additional documentation with this letter: a copy of "Preserving the Community of Agua Fria," by Hazel Romero, La Herencia, Vol. XXXIV, summer, 2000, pp. 36-37; and a copy of an aerial map of the central part of Agua Fria Village. Mr. Romero would like to credit the El Camino Real Committee of the Agua Fria Village Association (Hazel Romero, William Mee, and Tamara Lichtenstein) with gathering the documentation submitted from the Association's files.

RESPONSE:

Noted. The documents (except the aerial photo retained by Mr. Romero) are on file in the Camino Real Administration Office.

COMMENT 35a:

Ysleta de Sur Pueblo's substantial ethnographic resources and presence in the area are not mentioned except for perfunctory statements on pages 84 and 98.

RESPONSE:

Four sites connected with Ysleta del Sur are described in Chapter 3, Existing Environment, Historic Sites/Parks/Cultural Facilities: The El Paso Missions and Mission Trail are described in general, and the sites of San Elizario, established in 1789 to protect settlements in the lower Rio Grande valley, the Socorro Mission, and the Ysleta del Sur Mission, are described in relation to the establishment of communities, including both Native Americans and Spanish colonists, south of El Paso, Texas, following the Pueblo Revolt of 1680. Ysleta del Sur Pueblo is recognized again under the heading of North American Indian Pueblos in Chapter 3 as well. The Puebloan cultures of the United States are described and their history outlined in brief as a group in Chapter 3 under the heading Puebloan Cultures. We have added text to the list of

Puebloan communities now found in the region, described in the draft on page 67, and included as the last paragraph of the section on Puebloan Cultures, Chapter 3, in the final document, to indicate that the Pueblo of Ysleta del Sur, Texas, is one of the Puebloan communities in the region today. None of the other Pueblo communities are described in any additional detail in the document; Chapter 3 is intended to serve as an overview of the existing environment and is in no way a definitive history or description of any particular community.

COMMENT 35b:

No representatives who were responsible for developing the "Resource Values" section of the report contacted the Pueblo. In order to identify ethnographic resources (defined in the draft plan as "any cultural or natural resource ascribed value by an existing community") in a given area such as the paseo del norte, an ethnographer would have to contact a living human community. That this was not done is a violation of the spirit and intent of government- to- government consultations. On page 57, the goal of the draft report is stated as: "aid in consultation with existing tribes to determine their views regarding the affects El Camino Real has had on their history, and what impacts, if any, the present plan's proposal may have on existing ethnographic resources on or off of federal lands." Developing this report in the absence of substantive consultation with the Tigua community has led to the presentation of pages of unfocused secondary sources providing narrative on the Apaches, a tribe whose "occupancy" or "claim" to the area has not been substantiated. Moreover, the Indian Claims Commission (Docket 22-C) disallowed the Mescalero Apache claims in much of west Texas.

RESPONSE:

The Ethnographic Resources section of the document presented in Chapter 3 is an overview of the Native American presence along the Camino Real spanning pre-Spanish contact through the present day. This section of the document was developed through the use of existing published sources; no ethnographic fieldwork was carried out to develop new information through interview, archival research, reviews of unpublished materials, or other efforts. The material presented here is intended to serve as background information; it does not represent the result of ethnographic fieldwork conducted for the purpose of generating new information on the Native American communities of the area. Any construction or interpretation projects that may be developed by or in partnership with El Camino Real Administration will be subject to all applicable environmental and cultural preservation legislation and regulation, and consultation with tribes will be carried out as appropriate at that time.

COMMENT 35c:

Further consultation with the Tribal Council will be necessary in order to identify what alternatives in the plan the Tribe would support. Until the report acknowledges the Tribe's historical occupancy of the west Texas area, support for the plan will be difficult. I have directed the tribal attorneys to provide your office with copies of the Tribal Archives which contain ample documentation of Ysleta del Sur's occupancy, use, and ancestral possession of the west Texas section of the El Camino Real. Please contact us for further commentary and to set up consultation meetings.

RESPONSE:

A total of 31 tribes and tribal organizations, including Ysleta del Sur, were contacted concerning this planning process. Contacts began with letters soliciting participation in community meetings and scoping meetings; Ysleta del Sur was represented by Rick Quezada at the meeting, Ysleta del Sur, Texas, in July 24, 2001. Tribes and interested parties, including Dr. Adolph

Greenberg, were again contacted through the circulation of a newsletter on the planning process, and through the dissemination of the draft plan by mail to individuals and tribes in October, 2002. The draft plan was followed up with another letter, again sent to both Dr. Greenberg and to the Pueblo of Ysleta del Sur in November, 2002. In all cases where the tribe or Dr. Greenberg was contacted, Camino Real Administration invited the tribe to set up a meeting so that the draft plan could be discussed in a face- to- face meeting with tribal representatives. Neither the tribe nor Dr. Greenberg responded to these communications until January, 2003, shortly before the end of the public comment period on January 15, 2003. At that time, Dr. Greenberg was asked if he would like to submit more detailed information on Ysleta del Sur and its relation to El Camino Real for inclusion with the final document. Dr. Greenberg indicated that he would need additional time, and requested an extension of the comment period for Ysleta del Sur until the end of February. At the end of February, Dr. Greenberg submitted the comments noted above, acting as Tribal Ethnographer, Miami University. Camino Real Administration met with Mr. Rick Quezada, War Captain for cultural affairs, Ysleta del Sur in Texas on March 14, 2003; Mr. Quezada indicated that the tribe was interested in the Camino Real de Tierra Adentro National Historic Trail, would like to be included in any project development that might relate to Ysleta del Sur, and expected to continue consultation on a project- by- project basis as trail administration and development proceeds.

GLOSSARY

Α

Refers to standards for various classes of land as designated by the Clean Air Act of 1978.

advisory council

A citizen group appointed by the Secretary of the Interior to advise on matters relating to the trail, including standards for the erection and maintenance of markers along the trail, and the administration of the trail.

AIRFA

The American Indian Religious Freedom Act.

air quality

Refers to standards for various classes of land as designated by the Clean Air Act of 1978.

alignment

The general heading of the remains of the trail or the projected route of the trail.

all-terrain vehicle

A wheeled or tracked vehicle, other than a snowmobile or work vehicle, designed primarily for recreational use, or for the transportation of property or equipment exclusively on undeveloped road rights- of- way, marshland, open country, or other unprepared surfaces.

allotment

An area of land where one or more livestock operators graze their livestock. Allotments generally consist of BLM lands, but may also include other federally managed, state owned, and private lands. An allotment may include one or more separate pastures. Livestock numbers and periods of use are specified for each allotment.

amendment

The process for considering or making changes in the terms, conditions, and decisions of approved Resource Management Plans or Management Framework Plans using the prescribed provisions for resource management planning appropriate to the proposed action or circumstances. Usually only one or two issues are considered that involve only a portion of the planning area.

adaptive management

The continuous process of modifying management actions based on the results of inventory and monitoring.

Area of Critical Environmental Concern (ACEC)

Areas within public lands in which special management attention is required to (1) protect and prevent irreparable damage to important historic, cultural, or scenic values, fish and wildlife resources, or other natural systems or processes; or to (2) protect life and safety from natural hazards.

arid region

A region in which precipitation is insufficient to support any but drought- adapted vegetation.

arroyo

A term applied in the arid and semiarid regions of the southwestern United States to the small, deep, flat-floored channel or gully of an ephemeral stream or of an intermittent stream, usually with vertical or steeply cut banks of unconsolidated material at least 2 feet high; it is usually dry, but may be transformed into a temporary watercourse or short-lived torrent after heavy rainfall.

authorized officer

The federal employee who has the delegated authority to make a specific decision.

auto tour route

A designated route of all- weather highways that closely parallels the historic trail route.

backcountry byways:

Vehicle routes that traverse scenic corridors utilizing secondary or backcountry road systems. National backcountry byways are designated by the type of road and vehicle needed to travel the byway.

best management practices

A practice or combination of practices that are determined after problem assessment and examination of alternatives to be the most effective and practicable (technologically, economically, and institutionally) means of preventing or reducing the amount of pollution from nonpoint sources to the level compatible with determined goals.

biodiversity

The diversity of living organisms considered at all levels of organization including genetics, species, and higher taxonomic levels, and the variety of habitats and ecosystems, as well as the processes occurring therein.

biological assessment

The gathering and evaluation of information on proposed endangered and threatened species and critical habitat and proposed critical habitat. Required when a management action potentially conflicts with endangered or threatened species, the biological assessment is the way in which federal agencies enter into formal consultation with the U.S. Fish and Wildlife Service and describe a proposed action and the consequences to the species the action would effect.

BLM

Bureau of Land Management.

bosque

A riverside forest.

camino

A road or roadway.

camino real

A road that connects a city with a Spanish Capital to a city with a Spanish land, open

Camino Real Administration (Office)

The joint BLM/NPS office in charge of administration of the National Historic Trail.

candidate species

Any species included in the Federal Register notice of review that are being considered for listing as threatened or endangered by the U.S. Fish and Wildlife Service.

Carreta

A cart that is drawn by a horse, mule or oxen.

CEQ

Council on Environmental Quality.

closed

Generally denotes that an area is not available for a particular use or uses; refer to specific definitions found in law, regulations, or policy guidance for application to individual programs.

closed area or trail

Designated areas and trails where the use of off- road vehicles is permanently or temporarily prohibited. The use of off- road vehicles in closed areas may be allowed only with the approval of the authorized officer.

closed road

A road or segment that is restricted from certain types of use during certain seasons of the year. The prohibited use and the time period of closure is specified.

CMP/EIS

Comprehensive Management Plan/Environmental Impact Statement.

Code of Federal Regulations (CFR)

The official, legal tabulation of regulations directing federal government activities.

collaboration

A cooperative process in which interested parties, often with widely varied interests, work together to seek solutions with broad support for managing public and other lands. This may or may not involve an agency as a cooperating agency.

collaborative partnerships

Refers to people working together, sharing knowledge and resources, to achieve desired outcomes for public lands and communities within statutory and regulatory frameworks.

CMP

Comprehensive Management Plan.

conformance

That a proposed action shall be specifically provided for in the land use plan or, if not specifically mentioned, shall be clearly consistent with the goals, objectives, or standards of the approved land use plan.

consistency

The proposed land use plan does not conflict with officially approved plans, programs, and policies of North American Indian tribes, other federal agencies, and state, and local governments to the extent practical within federal law, regulation, and policy.

cooperating agency

Assists the lead federal agency in developing an Environmental Analysis or Environmental Impact Statement. The Council on Environmental Quality regulations implementing NEPA define a cooperating agency as any agency that has jurisdiction by law or special expertise for proposals covered by NEPA. Any North American Indian tribe or federal, state, or local government jurisdiction with such qualifications may become a cooperating agency by agreement with the lead agency.

corridor

The area encompassing the length and breadth of the historic remains of the trail and/or the projected length and breadth of the historic alignment of the trail.

Council on Environmental Quality (CEQ)

An advisory council to the President of the United States established by the National Environmental Policy Act of 1969. It reviews federal programs for their effect on the environment, conducts environmental studies, and advises the President on environmental matters.

cultural resources

Nonrenewable elements of the physical and human environment, including archeological remains (evidence of prehistoric or historic human activities) and sociocultural values traditionally held by ethnic groups (sacred places, traditionally utilized raw materials, etc.).

cultural site

Any location that includes prehistoric and/or historic evidence of human use, or that has important sociocultural value.

cumulative impact

The impact on the environment that results from the incremental impact of the action when added to other past, present, or reasonably foreseeable future actions regardless of what agency (federal or non-federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

designated roads and trails

Specific roads and trails where some type of motorized vehicle use is allowed either seasonally or all year long.

desired condition

Description of those factors that should exist within ecosystems, both to maintain their survival and to meet social and economic needs.

diversity

The relative abundance of wildlife species, plant species, communities, habitats, or habitat features per unit of area.

easement

A right afforded a person or agency to make limited use of another's real property for access or other purposes.

Economic Study Area (ESA)

The area described in this planning effort comprising eight counties in New Mexico, one in Texas, and the State of Chihuahua, which forms the basis for the socioeconomic profile.

ecosystem

A complete, interacting system of living organisms and the land and water that make up their environment; the home places of all living things, including humans.

Environmental Assessment (EA)

A concise public document prepared to provide sufficient evidence and analysis for determining whether to prepare an environmental impact statement or a finding of no significant impact. It includes a brief discussion of the need for the proposal, alternatives considered, environmental impacts of the proposed action and alternatives, and a list of agencies and individuals consulted.

Environmental Impact Statement (EIS)

A detailed written statement required by the National Environmental Policy Act when an agency proposes a major federal action significantly affecting the quality of the human environment.

erosion

The wearing away of the land surface by running water, wind, ice, or other geological agents.

FHWA

Federal Highway Administration.

Federal Land Policy and Management Act of 1976 (FLPMA)

Public Law 94-579, of October 21, 1976, often referred to as the BLM's Organic Act, which provides the majority of the BLM's legislated authority, direction, policy, and basic management guidance.

Federal Protection Component

Those components on federally owned lands that meet national historic trail criteria.

Federal Register

A daily publication that reports Presidential and federal agency documents.

forage

All browse and herbaceous foods available to grazing animals that may be grazed or harvested for feeding.

Geographic Information System (GIS)

A computer system capable of storing, analyzing, and displaying data and describing places on the earth's surface.

goal

A broad statement of a desired outcome. Goals are usually not quantifiable and may not have established time frames for achievement.

groundwater

Water contained in pore spaces of consolidated and unconsolidated surface material.

habitat

A specific set of physical conditions that surround a species, group of species, or a large community. In wildlife management, the major constituents of habitat are considered to be food, water, cover, and living space.

high-potential route segment

Those segments of a trail which would afford high quality recreation experience in a portion of the route having greater than average scenic values or affording an opportunity to vicariously share the experience of the original users of a historic route.

high-potential historic site

Those historic sites related to the route, or sites in close proximity thereto, which provide opportunities to interpret the historical significance of the trail during the period of its major use. Criteria for consideration as high-potential historic sites include historic significance, presence of visible historic remnants, scenic quality, and relative freedom from intrusion.

IBWC

International Boundary and Water Commission.

impact

A modification of the existing environment caused by an action (such as construction or operation of facilities).

impacts (or effects)

Environmental consequences (the scientific and analytical basis for comparison of alternatives) as a result of a proposed action. Effects may be either direct, which are caused by the action and occur at the same time and place, or indirect, which are caused by the action and are later in time or farther removed in distance but still reasonably foreseeable, or cumulative.

implementation decisions

Decisions that take action to implement land use plan decisions. They can generally be appealed to the Interior Board of Land Appeals.

implementation plan

A site- specific plan written to implement decisions made in a land use plan. An implementation plan usually selects and applies best management practices to meet land use plan objectives. Implementation plans are synonymous with activity plans. Examples of implementation plans include interdisciplinary management plans, habitat management plans, and allotment management plans.

INAH

Instituto Nacional de Anthropología e Historia. An Agency of the Nation of Mexico which is roughly equal to the National Park Service and Bureau of Land Management.

Indian tribe (North American Indian)

Any Indian group in the conterminous United States that the Secretary of the Interior recognizes as possessing tribal status.

indirect impacts

Secondary effects that occur in locations other than the initial action or later in time.

infrastructure

The facilities, services, and equipment needed for a community to function, including roads, sewers, water lines, police and fire protection, and schools.

interdisciplinary team

A group of individuals with different training, representing the physical sciences, social sciences, and environmental design arts, assembled to solve a problem or perform a task. The members of the team proceed to a solution with frequent interaction so that each discipline may provide insights to any stage of the problem and disciplines may combine to provide new solutions. The number and disciplines of the members preparing the plan vary with circumstances. A member may represent one or more discipline.

Interior Board of Land Appeals

The board of the Department of the Interior Office of Hearings and Appeals that acts for the Secretary of the Interior in responding to appeals of decisions on the use and disposition of public lands and resources. Because the Interior Board of Land Appeals acts for and on behalf of the Secretary of the Interior, its decisions usually represent the department's final decision but are subject to the courts.

land use allocation

The identification in a land use plan of the activities and foreseeable development that are allowed, restricted, or excluded for all or part of the planning area, based on desired future conditions.

land use plan

A set of decisions that establish management direction for land within an administrative area, as prescribed under the planning provisions of FLPMA; an assimilation of land- useplan-level decisions developed through the planning process, regardless of the scale at which the decisions were developed.

land use plan decision

Establishes desired outcomes and actions needed to achieve them. Decisions are reached using the BLM planning process. When they are presented to the public as proposed decisions, they can be protested to the BLM Director. They cannot be appealed to the Interior Board of Land Appeals.

land use planning base

The entire body of land use plan decisions resulting from Resource Management Plans, Management Framework Plans, planning analyses, the adoption of other agency plans, or any other type of plan in which land-use-plan-level decisions are reached.

leasable minerals

Those minerals or materials designated as leasable under the Mineral Leasing Act of 1920. They include coal, phosphate, asphalt, sulfur, potassium, and sodium minerals, and oil, gas, and geothermal.

lease

(1) A legal document that conveys to an operator the right to drill for oil and gas; and (2) the tract of land on which a lease has been obtained, where producing wells and production equipment are located.

limited areas or trails

Designated areas or trails where the use of off- road vehicles is subject to restrictions, such as limiting the number or types or vehicles allowed, dates and times of use (seasonal restrictions), limiting use to existing roads and trails, or limiting use to designated roads and trails. Under the designated roads and trails designation, use would be allowed only on roads and trails that are signed for use. Combinations of restrictions are possible, such as limiting use to certain types of vehicles during certain times of the year.

locatable minerals

Minerals subject to exploration, development, and disposal by staking mining claims as authorized by the Mining Law of 1872, as amended. This includes deposits of gold, silver, and other uncommon minerals not subject to lease or sale.

LWCF

Land and Water Conservation Fund.

management opportunities

A component of the analysis of the management situation; actions or management direc

tions that could be taken to resolve issues or management concerns.

mineral

Any solid or fluid inorganic substance that can be extracted from the earth for profit.

mineral materials

Materials such as common varieties of sand, stone, gravel, pumice, pumicite, and clay that are not obtainable under the mining or leasing laws but that can be acquired under the Mineral Materials Act of 1947, as amended.

mineral rights

Mineral rights outstanding are third- party rights- an interest in minerals not owned by the person or party conveying the land to the United States. It is an exception in a deed that is the result of prior conveyance separating title of certain minerals from the surface estate.

mineral withdrawal

A formal order that withholds federal lands and minerals from entry under the Mining Law of 1872 and closes the area to mineral location (staking mining claims) and development.

mining claim

A parcel of land that a miner takes and holds for mining purposes, having acquired the right of possession by complying with the Mining Law and local laws and rules. A single mining claim may contain as many adjoining locations as the locator may make or buy. There are four categories of mining claims: lode, placer, mill site, and tunnel site.

mitigation measures

Methods or procedures that reduce or lessen the impacts of an action.

monitoring

The periodic observation and orderly collection of data on (1) changing conditions of public land related to management actions; and (2) the effects of implementing decisions.

monitoring

The process of tracking the implementation of land use plan decisions.

multijurisdictional planning

Collaborative planning in which the purpose is to address land use planning issues for an area, such as an entire watershed or other landscape unit, in which there is a mix of public and/or private landownerships and adjoining or overlapping tribal, state, local government, or other federal agency authorities.

multiple use

The management of public lands and their various resource values so that they are utilized in the combination that will best meet the present and future needs of the American people. Making the most judicious use of the lands for some or all of these resources or related services over areas large enough to provide sufficient latitude for periodic adjustments in use to conform to changing needs and conditions. The use of some lands for less than all of the resources. A combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including, but not limited to, recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific, and historical values. And harmonious and coordinated management of the various resources without permanent impairment of the productivity of the lands and the quality of the environment, with consideration being given to the relative values of the resources and not necessarily to the combination of uses that will give the greatest economic return or greatest unit output.

multiplier

The number of times new investment spending will be re-spent to produce a certain amount of new income.

NAGPRA

Native American Graves Protection and Repatriation Act.

NASA

National Aeronautics and Space Administration.

NEA

National Endowment for the Arts.

National Environmental Policy Act of 1969 (NEPA): An act that encourages productive and enjoyable harmony between humans and their environment and promotes efforts to prevent or eliminate damage to the environment; enriches the understanding or the ecological systems and natural resources important to the nation; and establishes the Council on Environmental Quality.

National Historic Landmark (NHL)

The National Historic Landmark program identifies, designates, and protects buildings, structures, sites, and objects of national significance. These properties commemorate and illustrate the history and culture of the United States.

NHT

National Historic Trail. National historic trails, are extended trails which follow as closely as possible and practicable the original trails or routes of travel of national historic significance. Designation of such trails or routes shall be continuous, but the established or developed trail, and the acquisition thereof, need not be continuous onsite. National historic trails shall have as their purpose the identification and protection of the historic route and its historic remnants and artifacts for public use and enjoyment. Only those selected land and water based components of a historic trail which are on federally owned lands and which meet the national historic

trail criteria established in this Act are included as Federal protection components of a national historic trail. The appropriate Secretary may certify other lands as protected segments of an historic trail upon application from State or local governmental agencies or private interests involved if such segments meet the national historic trail criteria established in this Act and such criteria supplementary thereto as the appropriate Secretary may prescribe, and are administered by such agencies or interests without expense to the United States.

NHTSA

National Historic Trails System Act, P.L. 90-543, 16 USC 1241-51.

NM

New Mexico.

NPS

National Park Service.

National Historic Preservation Act (NHPA)

The principal federal law dealing with historic preservation. It established a national policy of historic preservation, including encouraging preservation on the state and private levels. The act authorized the Secretary of the Interior to maintain a National Register of Historic Places.

National Landscape Conservation System (NLCS)

A system of congressional, Presidential, or other designated areas managed by the BLM, the components of which include National Monuments, National Conservation Areas, Wilderness Areas, Wilderness Study Areas, Wild and Scenic Rivers, National Historic Trails, National Scenic Trails, the California Desert Conservation Area, and the Headwaters Forest Reserve.

National Natural Landmarks (NNL)

Sites designated by the Secretary of the Interior as containing the best representative examples of geologic features and natural communities composing the nation's natural history. The purpose of the designation is to

encourage preservation of such sites through well-informed management and use, and consideration of these sites in public and private land use planning. Designation has no legal effect on landownership, use, or management.

National Register of Historic Places (NRHP)

A register of districts, sites, buildings, structures, and objects, significant in American history, architecture, archeology, and culture, established by the Historic Preservation Act of 1966, and maintained by the Secretary of the Interior.

National Register potential

Status of a cultural resource, which is deemed qualified for the National Register of Historic Places prior to formal documentation and consultation; managed as if it were actually listed.

NWR

National Wildlife Refuge.

negligible impact

Impact that is small in magnitude and importance and is difficult or impossible to quantify relative to those occurring naturally or due to other actions.

non-point-source pollution

Unlike pollution from industrial and sewage treatment plants, pollution comes from many diffuse sources. Pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even our underground sources of drinking water.

objective

A description of a desired condition for a resource. Objectives can be quantified and measured, and, where possible, have established time frames for achievement.

off-highway vehicle (off-road vehicle; OHV)

Any motorized vehicle capable of, or designed for, travel on or immediately over land, water, or other natural terrain, excluding: (1) any

non- amphibious registered motorboat; (2) any military, fire, emergency, or law enforcement vehicle while being used for emergency purposes; (3) any vehicle whose use is expressly authorized by the authorized officer, or otherwise officially approved; (4) vehicles in official use; and (5) any combat or combat-support vehicle when used in times of national defense emergencies.

open areas and trails

Designated areas and trails where off- road vehicles may be operated, subject to operating regulations and vehicle standards; or an area where all types of vehicle use is permitted at all times, subject to standards.

paleontological resources (fossils)

The physical remains of plants and animals preserved in soils and sedimentary rock formations. Paleontological resources are important for understanding past environments, environmental change, and the evolution of life.

paraje

(general). Spanish, 'place, residence," but in NM the term has also become a place name, referring usually to a 'stopping place" or "campground" travelers. Many old settlements originally were parajes, such as Paraje de Belen and Paraje de Bernalillo. Josiah Gregg, in *Commerce of the Prairies* (1844), described the Paraje of Fra Cristobal as "like many others on the route, neither town nor village, but a simple isolated point on the river bank- a mere paraje, or camping ground." [Julyan]

physiographic province

A region defined by a unified geologic history and a characteristic geologic structure and climate that differs from adjoining regions.

plan

A document that contains a set of comprehensive, long-range decisions concerning the use and management of resources in a specific geographic area.

planning area

A geographical area for which land use and Resource Management Plans are developed and maintained.

planning criteria

The standards, rules, and other factors developed by managers and interdisciplinary teams for their use in forming judgments about decision- making, analysis, and data collection during planning. Planning criteria streamline and simplify the resource management planning actions.

planning analysis

A process using appropriate resource data and NEPA analysis to provide a basis for decisions in areas not yet covered by a Resource Management Plan.

preplan or project plan

Describes the purpose, location, issues to be resolved, participants' roles and responsibilities, budget, and schedule.

Pueblo

An Anerican Indian Village or collective group of American Indian people known by a specific name e.g.: Santa Domingo Pueblo

R&PP

Recreation and Public Purposes.

rangeland

Land used for grazing by livestock and big game animals on which vegetation is dominated by grasses, grass-like plants, forbs, or shrubs.

raptor

Birds of prey with sharp talons and strongly curved beaks, such as hawks, owls, vultures, and eagles.

record of decision

A document signed by a responsible official recording a decision that was preceded by the preparing of an Environmental Impact Statement.

Resource Management Plan (RMP)

A land use plan as prescribed by the Federal Land Policy and Management Act that establishes, for a given area of land, land- use allocations, coordination guidelines for multipleuse, objectives, and actions to be achieved.

right-of-way

A permit or an easement that authorizes the use of public lands for certain specified purposes, commonly for pipelines, roads, telephone lines, electric lines, reservoirs, etc.; also, the lands covered by such an easement or permit.

right-of-way corridor

A parcel of land that has been identified by law, Secretarial order, through a land use plan, or by other management decision as being the preferred location for existing and future right- of- way grants, and suitable to accommodate one type of right- of- way or one or more rights- of- way that are similar, identical, or compatible.

riparian area

A form of wetland transition between permanently saturated wetlands and upland areas. Riparian areas exhibit vegetation or physical characteristics that reflect the influence of permanent surface or subsurface water. Typical riparian areas include lands along, adjacent to, or contiguous with perennially and intermittently flowing rivers and streams, glacial potholes, and the shores of lakes and reservoirs with stable water levels. Excluded are ephemeral streams or washes that lack vegetation and depend on free water in the soil.

rock art

Petroglyphs (engraved designs) or pictographs (painted designs).

saleable minerals

Common- variety minerals on public lands, such as sand and gravel, which are used mainly for construction and are disposed of by sales or special permits to local governments.

scenic byways

Highway routes that have roadsides or corridors of special esthetic, cultural, or historical value. An essential part of the highway is its scenic corridor. The corridor may contain outstanding scenic vistas, unusual geologic features, or other natural elements.

scenic quality

The degree of harmony, contrast, and variety within a landscape.

Section 106 compliance

The requirement of Section 106 of the National Historic Preservation Act that any project funded, licensed, permitted, or assisted by the federal government be reviewed for impacts to significant historic properties, and that the State Historic Preservation Officer and the Advisory Council on Historic Preservation be allowed to comment on a project.

sediment yield

The amount of sediment produced in a watershed, expressed in tons, acre feet, or cubic yards, of sediment per unit of drainage area per year.

SHPO

State Historic Preservation Officer.

significant

An effect that is analyzed in the context of the proposed action to determine the degree or magnitude of importance of the effect, either beneficial or adverse. The degree of significance can be related to other actions with individually insignificant but cumulatively significant impacts.

site steward program

A program designed to preserve cultural sites through the use of volunteers, similar to a neighborhood watch program.

SLO

State Land Office.

special status species

Includes proposed species, listed species, and candidate species under the ESA; State-listed species; and BLM State Director-designated sensitive species.

species diversity

The number of, different kinds of, and relative abundance of, species present in a given area.

standard

A description of the physical and biological conditions or degree of function required for healthy, sustainable lands (e.g., land health standards).

Swale

Swale is the physical evidence of the historic trail. Typically the trail remains are not ruts but swales that have been created by the passage of animals pulling a wagon or cart.

trace

A path, trail or road made by the passage of animals, people, or vehicles.

Threatened and Endangered Species (T&E)

Any plant or animal species defined under the Endangered Species Act as likely to become endangered within the foreseeable future throughout all or a significant portion of its range; listings are published in the Federal Register.

TX

Texas

USDA

United States Department of Agriculture.

USFS

United States Forest Service (also listed as USDA Forest Service).

USFWS

United States Fish and Wildlife Service.

variant or alternative route

A route of the trail that in general parallels another alignment of the trail or road.

visual resources

The visible physical features of a landscape (topography, water, vegetation, animals, structures, and other features) that constitute the scenery of an area.

VRM

Visual Resources Management.

water quality

The chemical, physical, and biological characteristics of water with respect to its suitability for a particular use.

watershed

All lands that are enclosed by a continuous hydrologic drainage divide and lie upslope from a specified point on a stream.

wetlands

Areas that are inundated or saturated by surface or ground water often and long enough to support and under normal circumstances do support a prevalence of vegetation typically adapted for life in saturated soil conditions.

A SELECTED BIBLIOGRAPHY

Architectural Research Consultants, Inc.

- 1994 "El Viaje: A Planning Study for El Camino Real Interpretive Center." Report prepared for Museum of New Mexico State Monuments.
- 2001 "El Camino Real Historic Corridor Management Plan for the Rio Abajo." Museum of New Mexico State Monuments Division. May 2001.

Cather, Willa

1999 Death Comes for the Archbishop. Lincoln, Nebraska: University of Nebraska Press.

D'Azededo, Warren L., Ed.

1986 Handbook of North American Indians, Volume II. Great Basin. Washington, D.C.: Smithsonian Institution.

Emory, Lieut.Col. William Hensley

Notes of a Military Reconnaissance from Fort Leavenworth in Missouri, to San Diego, California, including part of the Arkansas, Del Norte, and Gila Rivers. Senate Document No. 7, 30th Congress, 1st Session, Ex. Doc. No. 41, Washington, D.C.

Fowler, John M.

n.d. Historic Range Livestock Industry in New Mexico. NP.

Hammond, George Peter and Agapito Rey, Eds.

1953 Don Juan de Oñate, Colonizer of New Mexico, 1595-1628. Coronado Cuarto Centennial Publications, 1540-1940, Vols. v and vi. Albuquerque, NM: University of New Mexico Press.

1966 The Rediscovery of New Mexico, 1580-1594: The Explorations of Chamuscado, Espejo, Castaño de Sosa, Morlete, and Leyva de Bonilla and Humaña. Coronado Cuarto Centennial Publications, 1540-1940, Vol. III. Albuquerque, NM: University of New Mexico Press, 1966.

Jefferson, Jim

2001 Nunt'z: The Ute People. Southern Ute Tribe Cultural Series.

Jemison, Roy, Carol Raish, C. Raish, Eds.

2000 Livestock Management in the American Southwest: Ecology, Society, and Economics. Amsterdam, The Netherlands: Elsevier Science, 2000.

Marshall, Michael P.

"El Camino Real de Tierra Adentro: An Archeological Investigation. The 1990 New Mexico Historic Preservation Division Survey." Prepared by El Camino Real Project and Cibola Research Consultants for the New Mexico Historic Preservation Division.

Moorhead, Max L.

1958 New Mexico's Royal Road: Trade and Travel on the Chihuahua Trail. University of Oklahoma Press, Norman.

Ortiz, Alfonso, Ed.

1979 *Southwest. Handbook of American Indians*, Vol. 9. General Editor, William C. Sturtevant. Washington, D.C.: Smithsonian Institution, 1979.

- 1983 *Southwest. Handbook of American Indians*, Vol. 10. General Editor, William C. Sturtevant. Washington, D.C.: Smithsonian Institution, 1983.
- Palmer, Gabrielle G., Comp., June- el Piper and LouAnn Jacobson, Eds.
- 1993 El Camino Real de Tierra Adentro, (Volume One). Santa Fe: Bureau of Land management, Cultural Resources Series No. 11.
- Palmer, Gabrielle G. and Stephen L. Fosberg, Comps., June- el Piper, Ed.
 - 1999 El Camino Real de Tierra Adentro, Volume Two. Santa Fe: Bureau of Land management, Cultural Resources Series No. 13.
- Pacheco, José De La Cruz and Sánchez, Joseph P, Coordinators.
- 2000 "Memorias del Coloquio Internatcional El Camino Real de Tierra Adentro." Instituto Nacional de Antropología e Historia (Mexico D.F.: 2000)
- Sando, Joe S.
 - 1992 Pueblo Nations: Eight Centuries of Pueblo Indian History. Santa Fe: clear Light Publishers, 1992.
 - 1998 Pueblo Profiles: Cultural Identity Through Centuries of Change. Santa Fe: Clear Light Publishers, 1998.

Simmons, Marc

- 1991 The Last Conquistador: Juan de Oñate and the Settling of the Far Southwest. Norman: University of Oklahoma Press.
- "Carros y Carretas: Vehicular Traffic on the Camino Real." In *Hispanic Arts and Ethnohistory in the Southwest*, edited by Martha Weigle, pp. 325-334. Ancient City Press, Santa Fe.
- U.S. Department of Agriculture, National Resource Conservation Service 2002 (http://plants.usda.gov/cgi_bin/topics.cgi)
- U.S. Department of the Interior, Bureau of Land Management.
 - 1985 Draft Resource Management Plan, Albuquerque District, Río Puerco Resource Area, March 1985.
 - 1985 Draft Resource Management Plan, Las Cruces District, White Sands Resource Area, March 1985.
 - 1988 Draft Resource Management Plan, Las Cruces District, Socorro Resource Area, January 1988.
 - 1993 Resource Management Plan, Las Cruces District, Mimbres Resource Area, December 1993.
- 1995 *La Cienega Area of Critical Environmental Concern: Coordinated Resource Management Plan.* Prepared by Taos Resource Area and Albuquerque District Office. [Albuquerque].
- U. S. Department of the Interior, National Park Service.
 - 1985 Trail of Tears: National Historic Trail Feasibility Study and Environmental Assessment. Denver.
- 1987 California and Pony Express Trails: Eligibility/Feasibility Study and Environmental Assessment for National Historic Trail Authorization. Denver.
- 1990 Santa Fe National Historic Trail Comprehensive Management and Use Plan. Denver.
- "Historical Dictionary of Place Names Associated with *El Camino Real de Tierra Adentro*." Project Director, Joseph P. Sánchez; Researchers, Bruce A. Erickson and Angélica Sanchez-Clark; Assistant Researchers, Chantal Cramaussel and Salvador Alvarez; Cartographical Consultant, Carolyn Finnance, Spanish Colonial Research Center. On file at NPS offices in Albuquerque and Santa Fe, New Mexico.

- 1996a "Toward a Definition of the Spanish *Camino Real: Cabañas*, Villas, Armies, and the Spanish Crown", Joseph P. Sánchez, Maria Luisa Pérez González, and Bruce A. Erickson, that is on file at the Spanish Colonial Research Center and the Long Distance Trails Group Office Santa Fe.
- 1996b El Paso Missions Special Resource Study, Texas.
- 1996c Juan Bautista de Anza National Historic Trail Comprehensive Management and Use Plan / Final Environmental Impact Statement. Pacific West Field Area, San Francisco, CA.
- 2000 "International Collaboration on Research, Conservation, and Dissemination of the Shared Cultural and Natural Heritage United States- Mexico Accomplishments 1994- 2000" National Park Service and Instituto Nacional de Antropología e Historia, 2000.
- 1991 National Park Service and Santa Fe Trail Association Certification Guide, Santa Fe National Historic Trail. Santa Fe, NM.

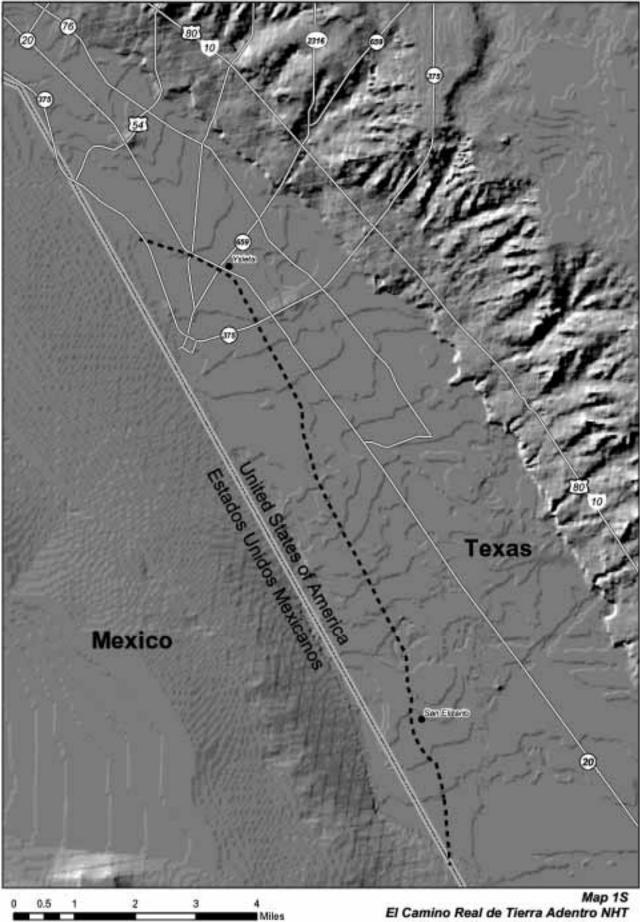






As the the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historical places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

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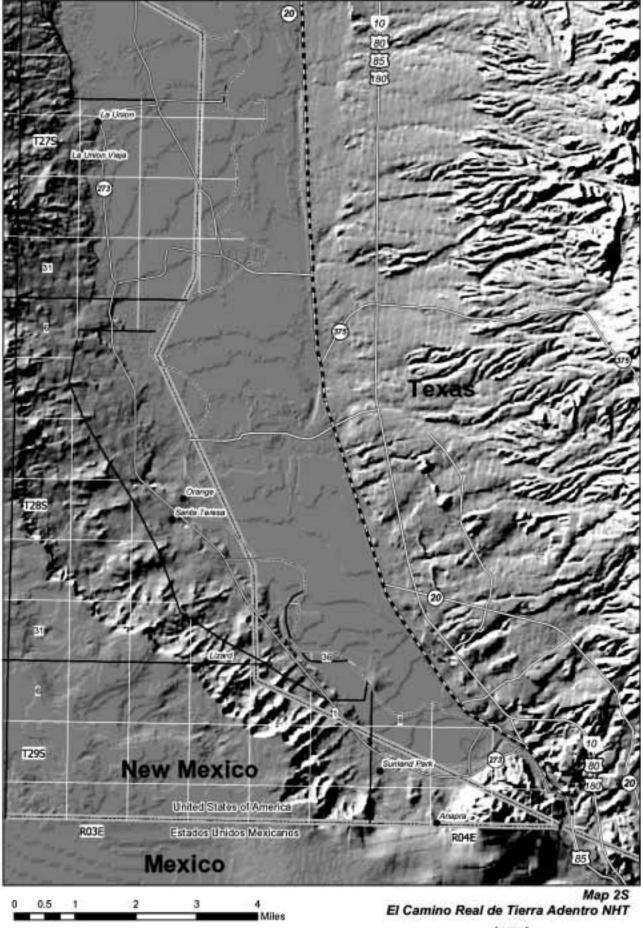


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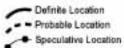




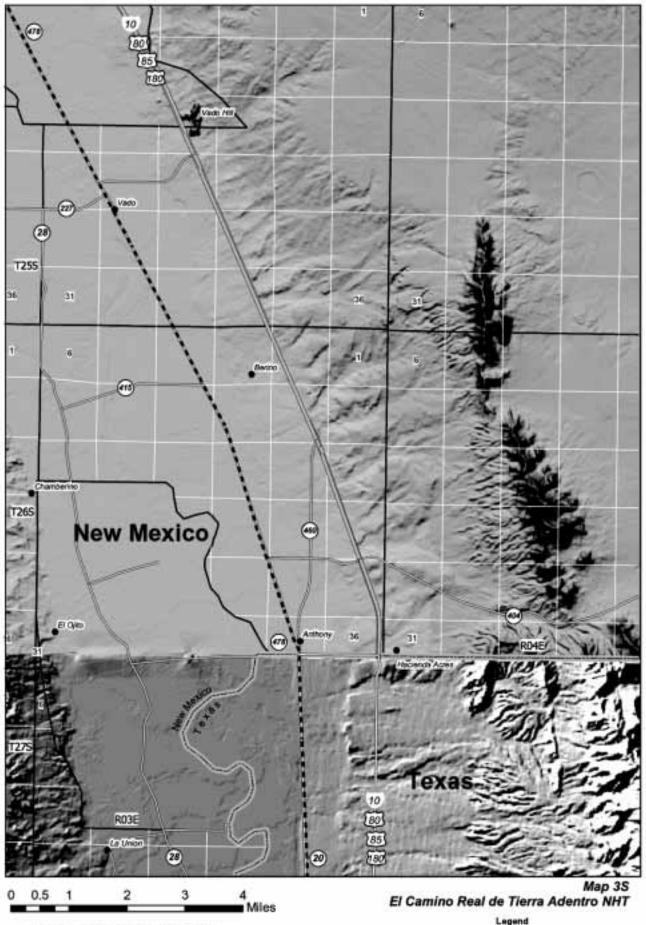


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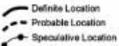




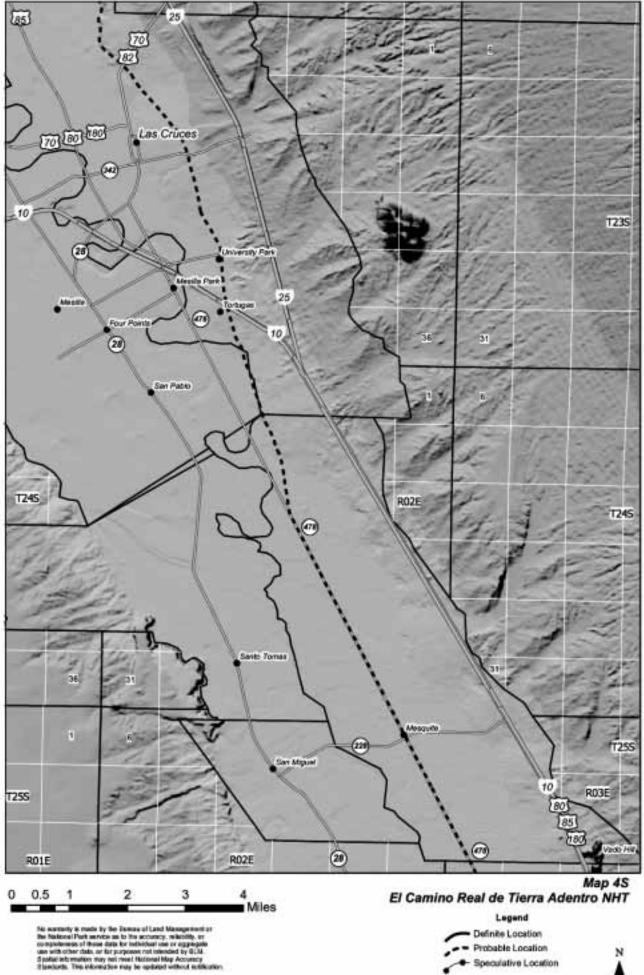




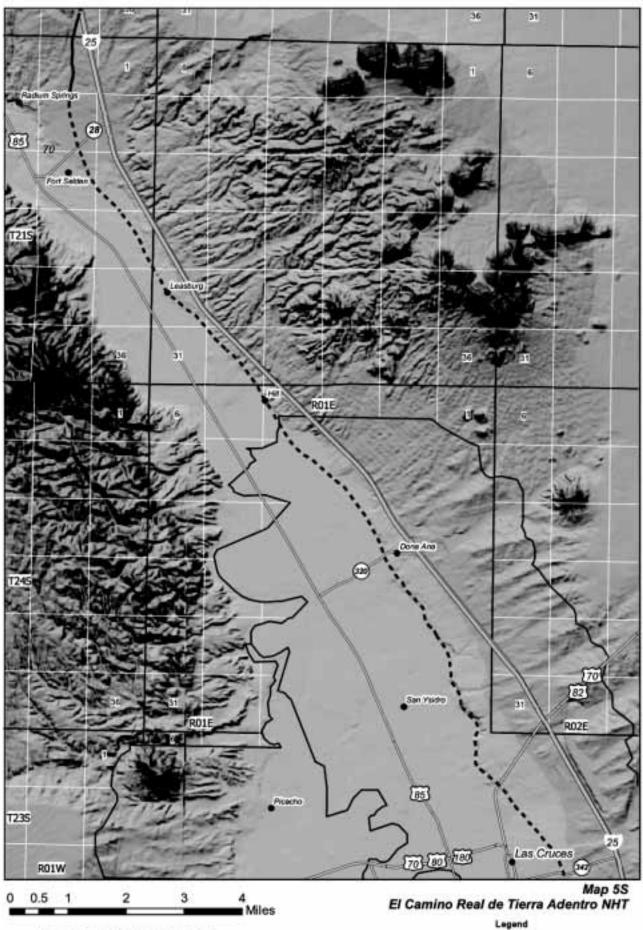




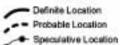




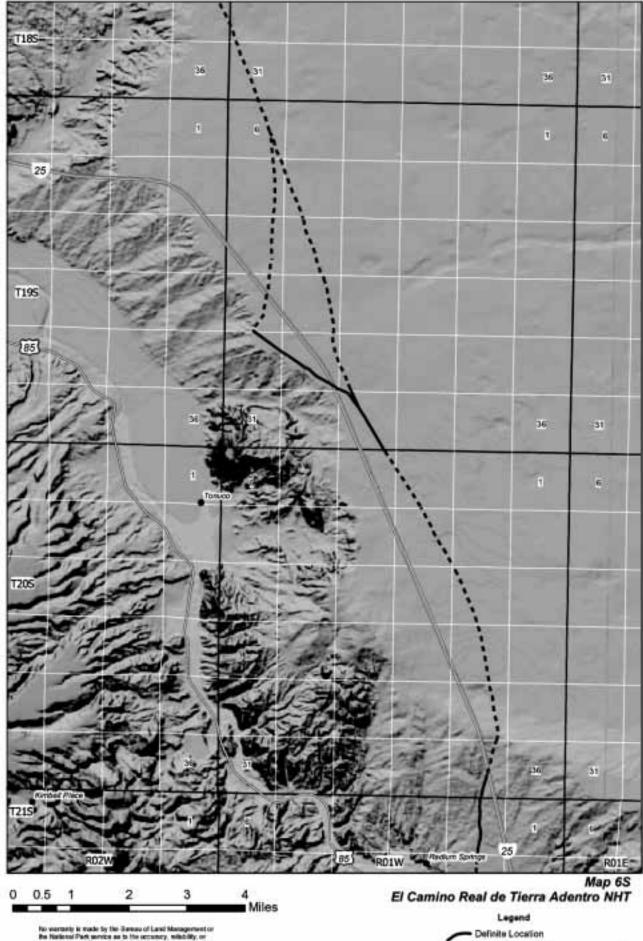




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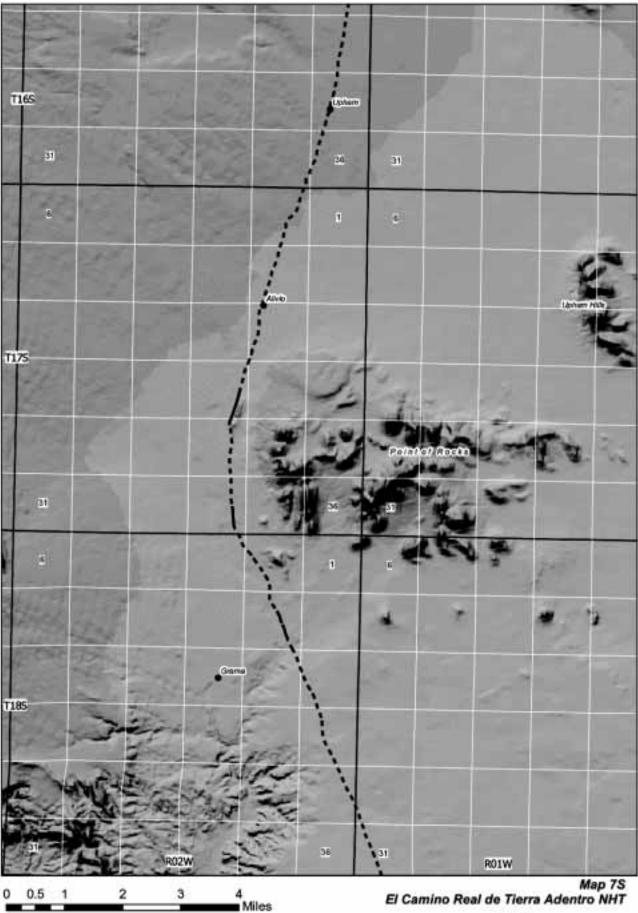




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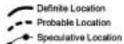




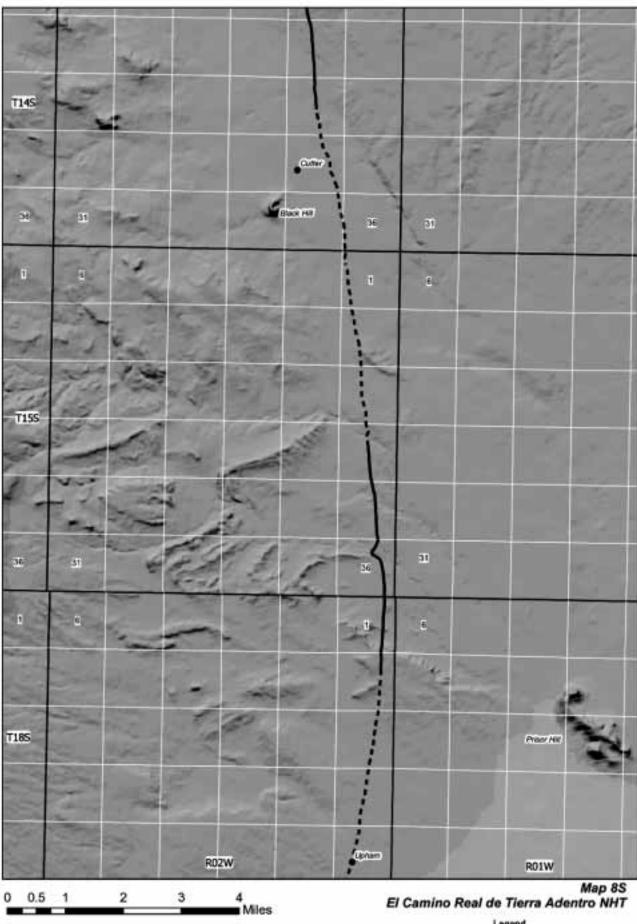
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Map 7S El Camino Real de Tierra Adentro NHT



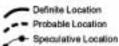




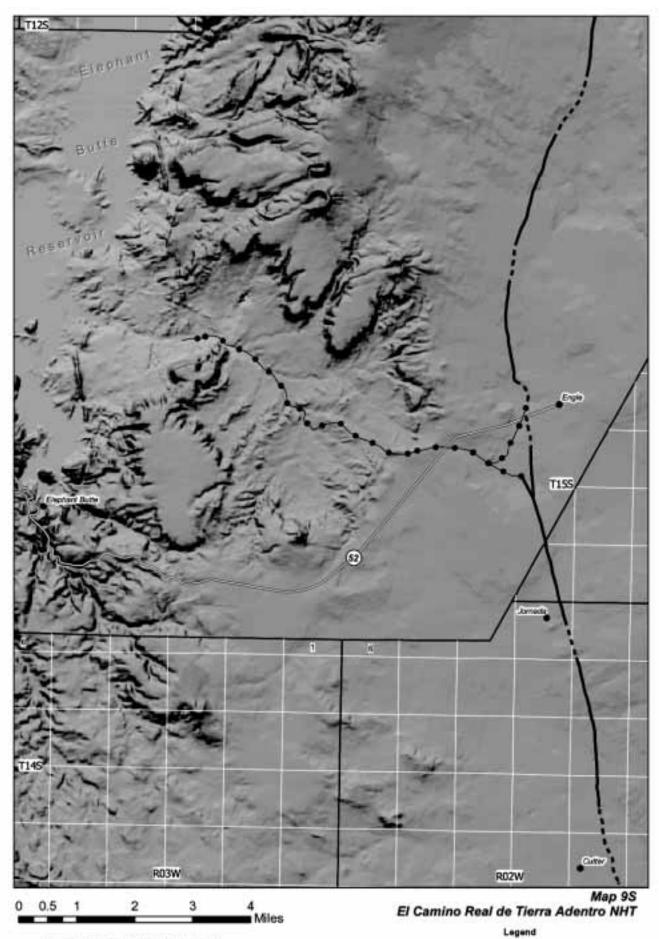


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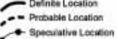




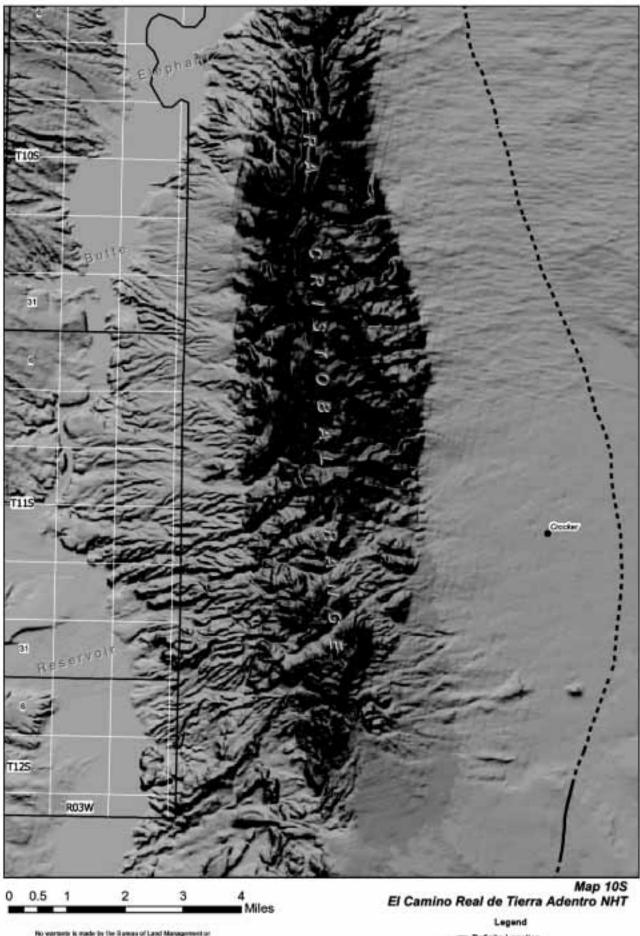


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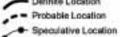




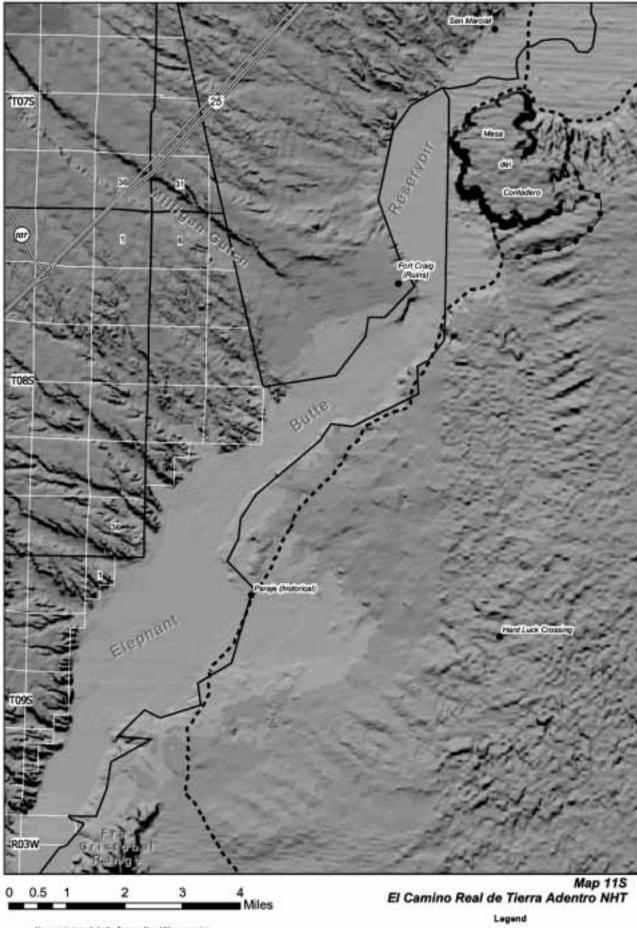


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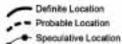




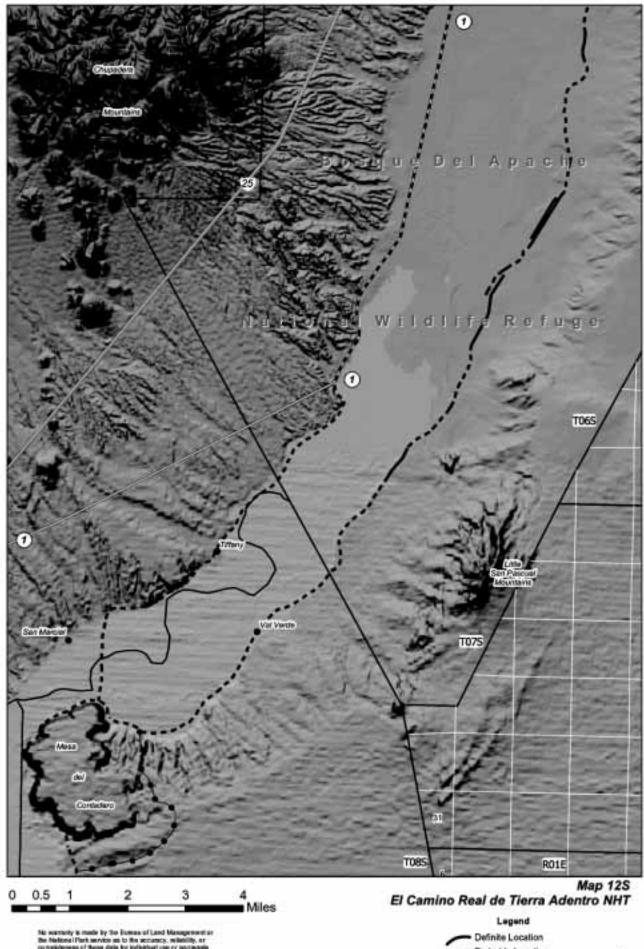




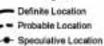
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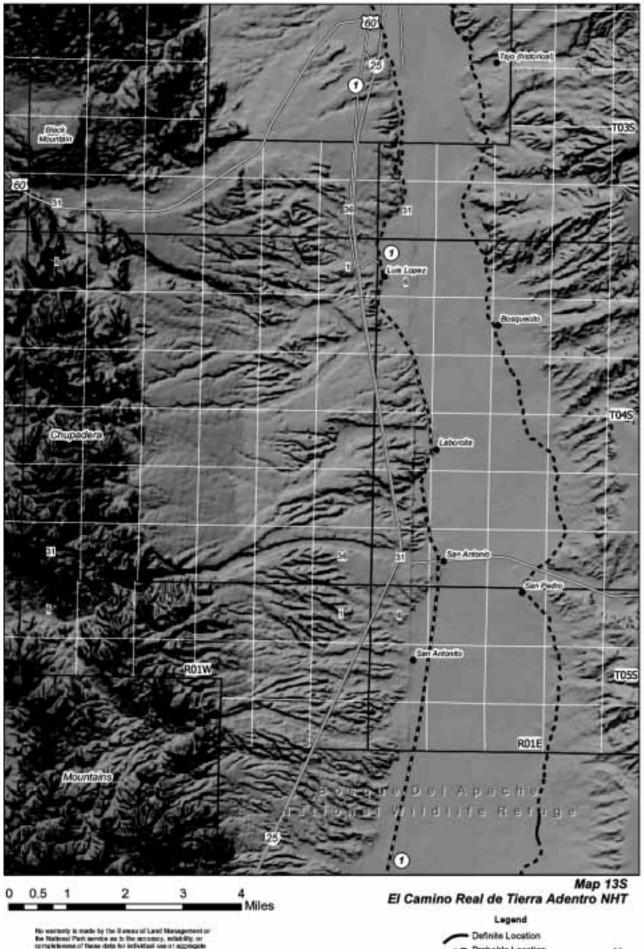




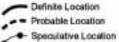
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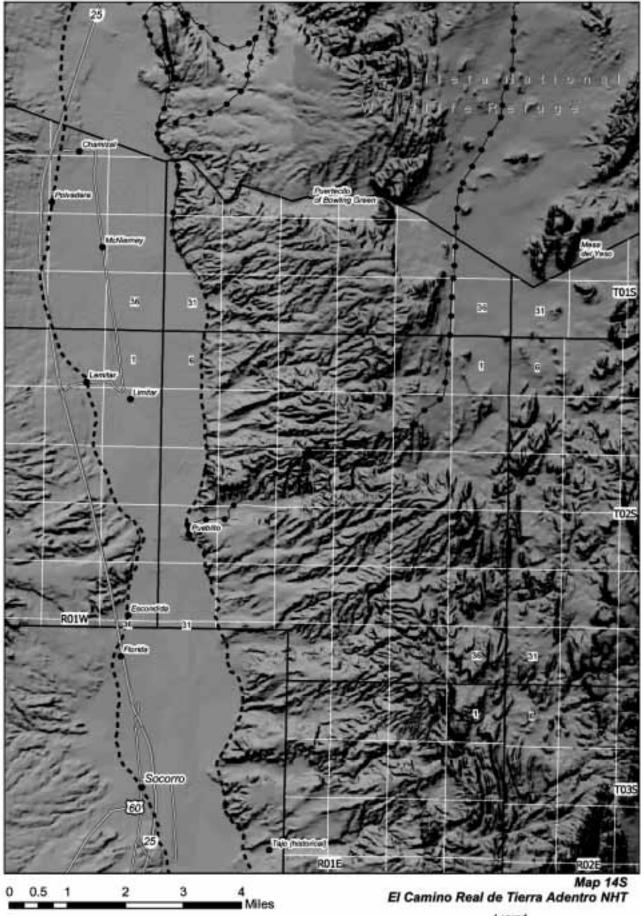




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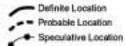




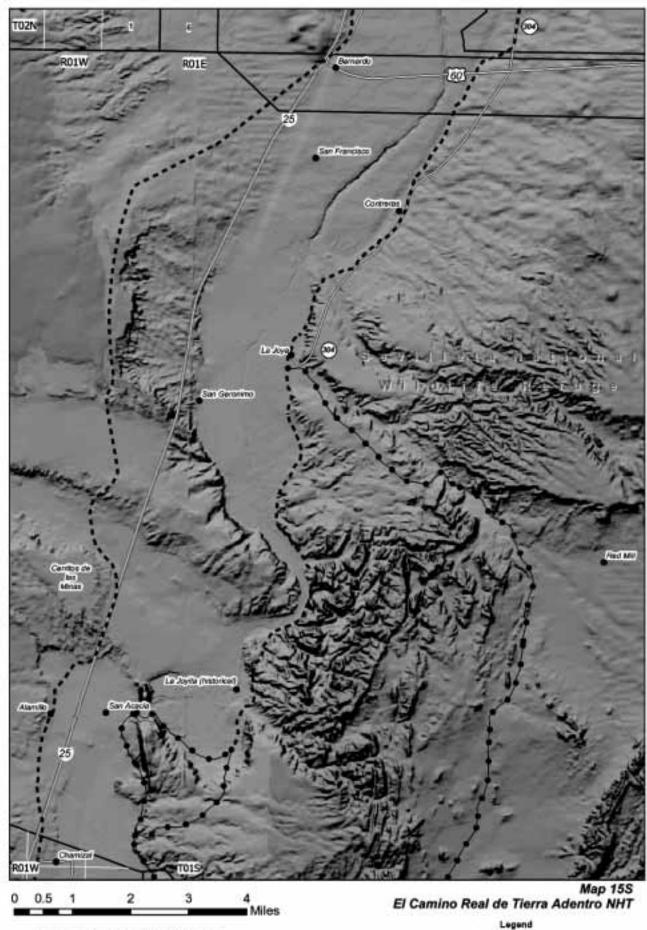


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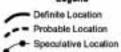




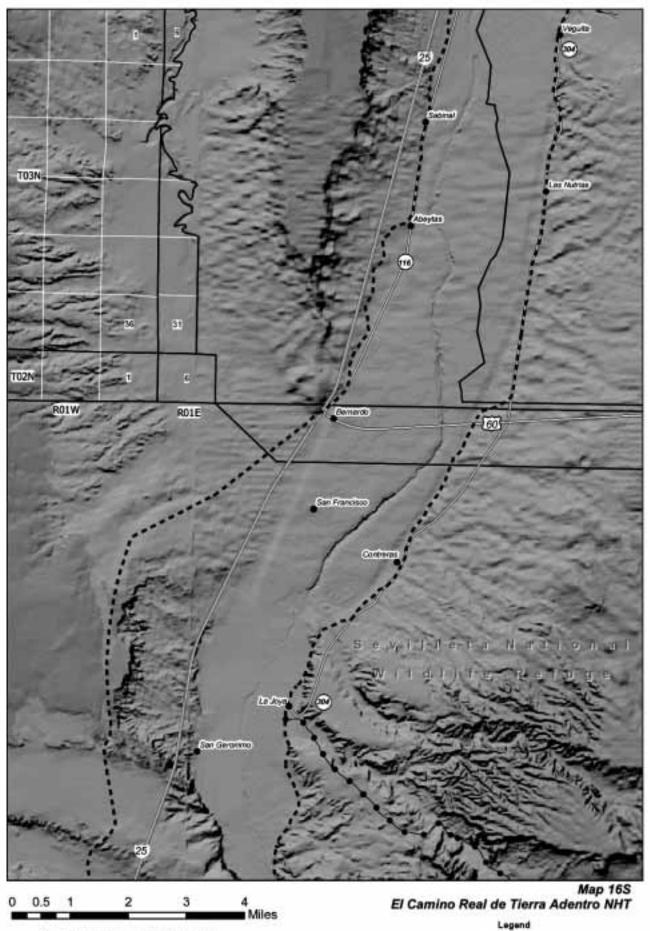




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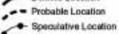




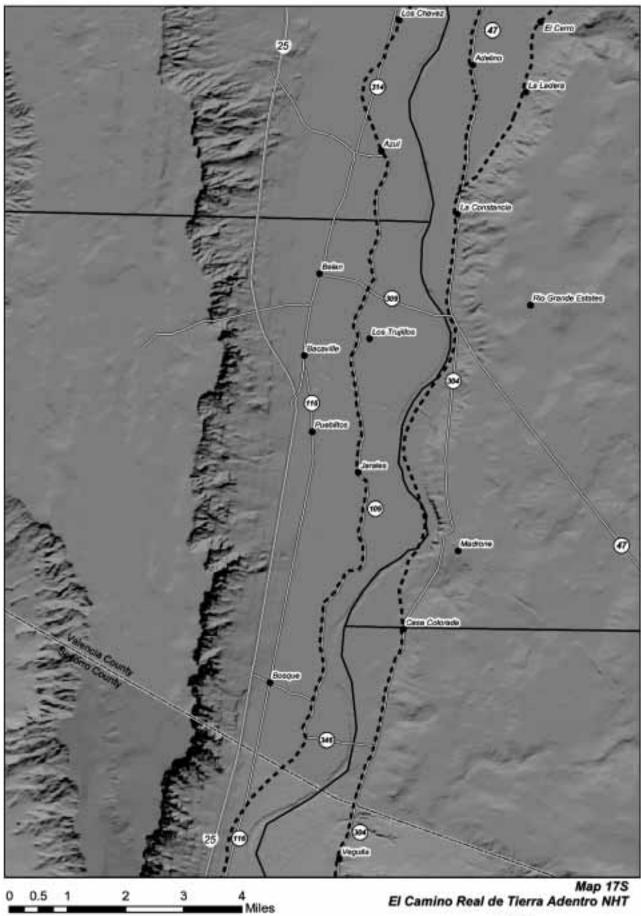


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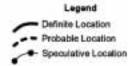




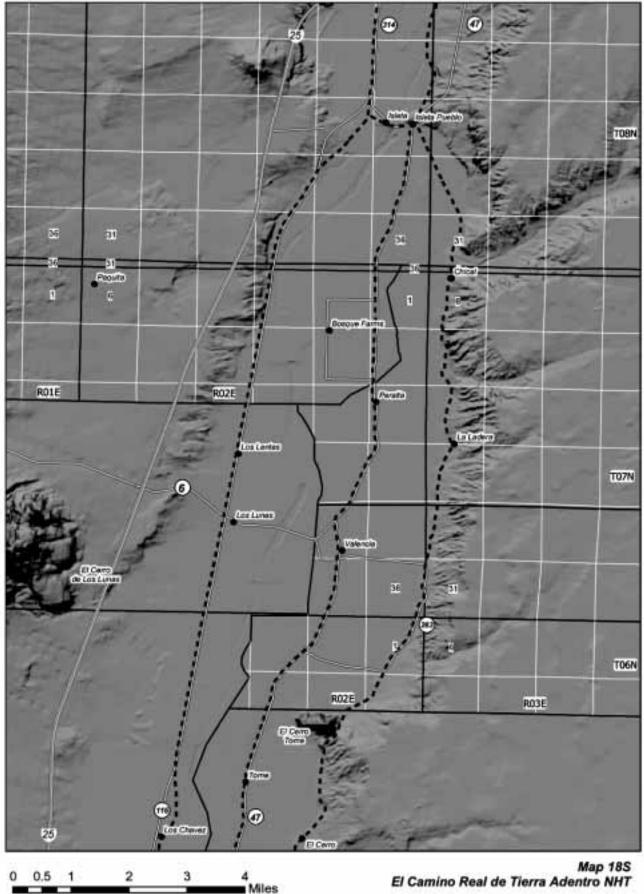


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Map 17S El Camino Real de Tierra Adentro NHT



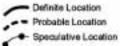




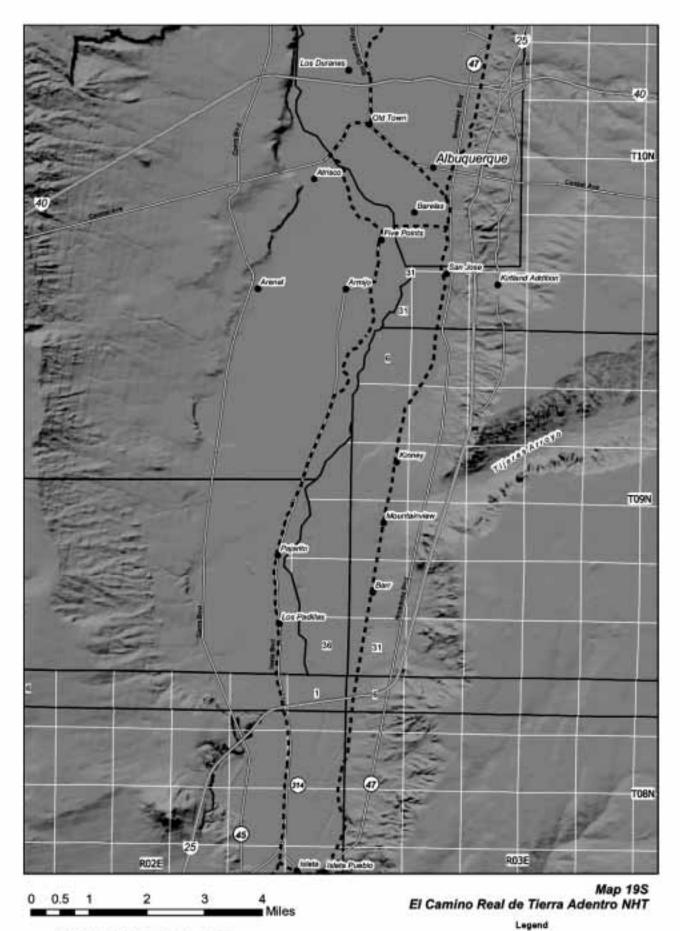
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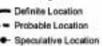




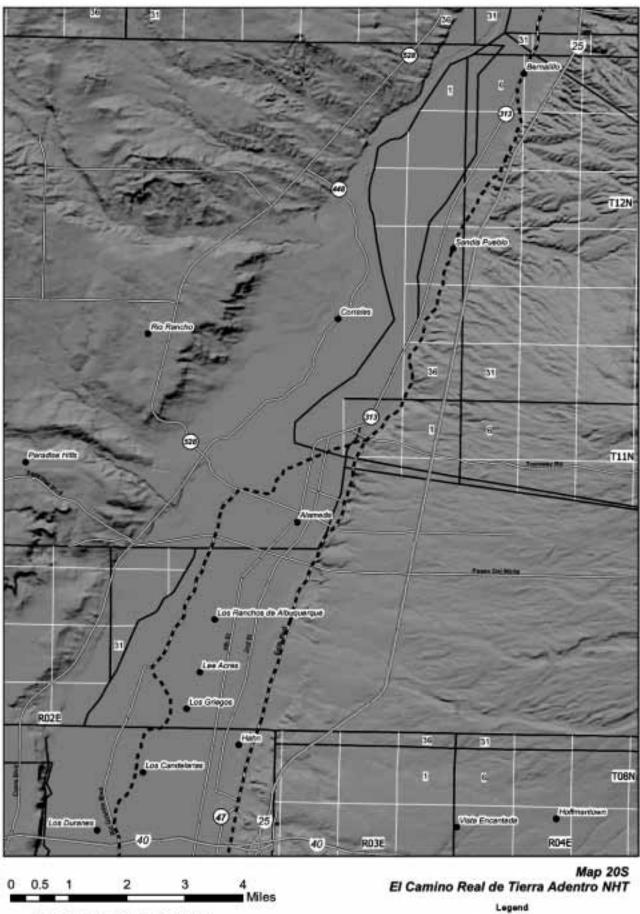




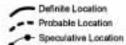
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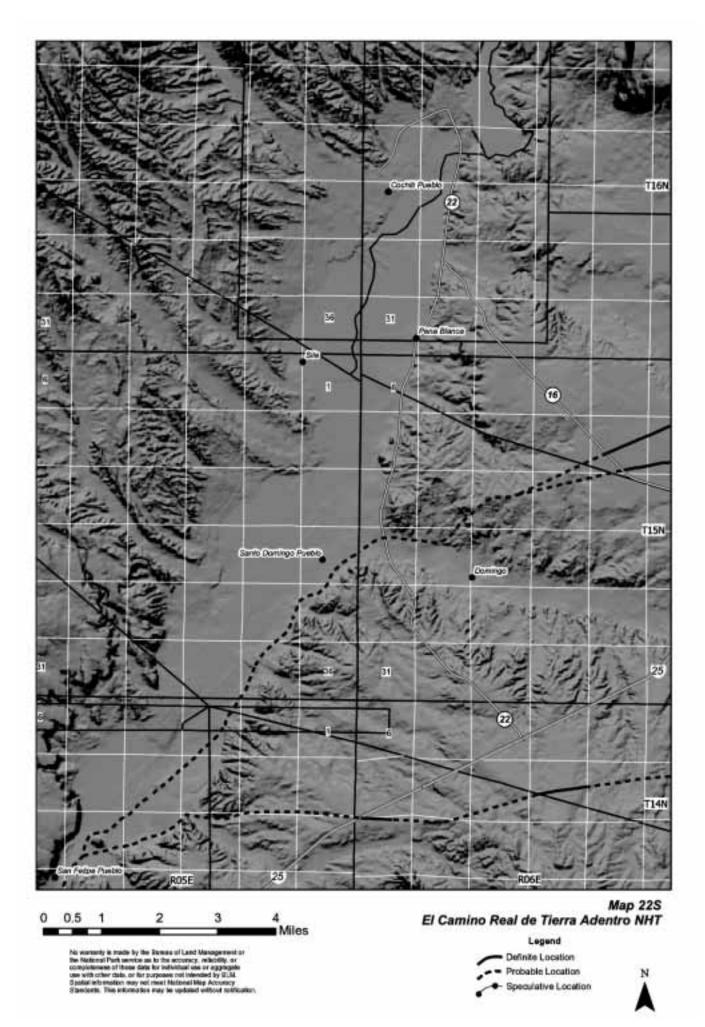


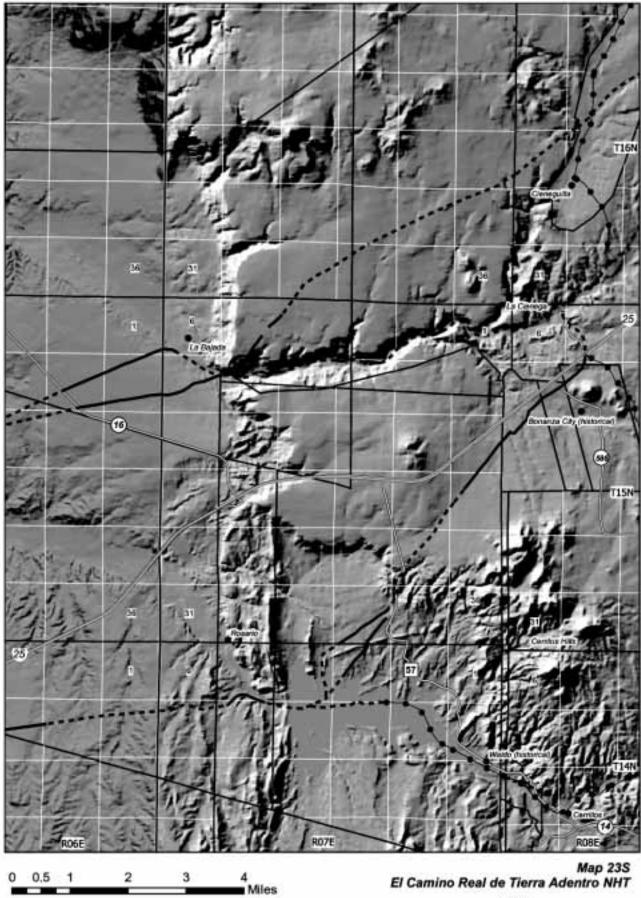


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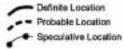




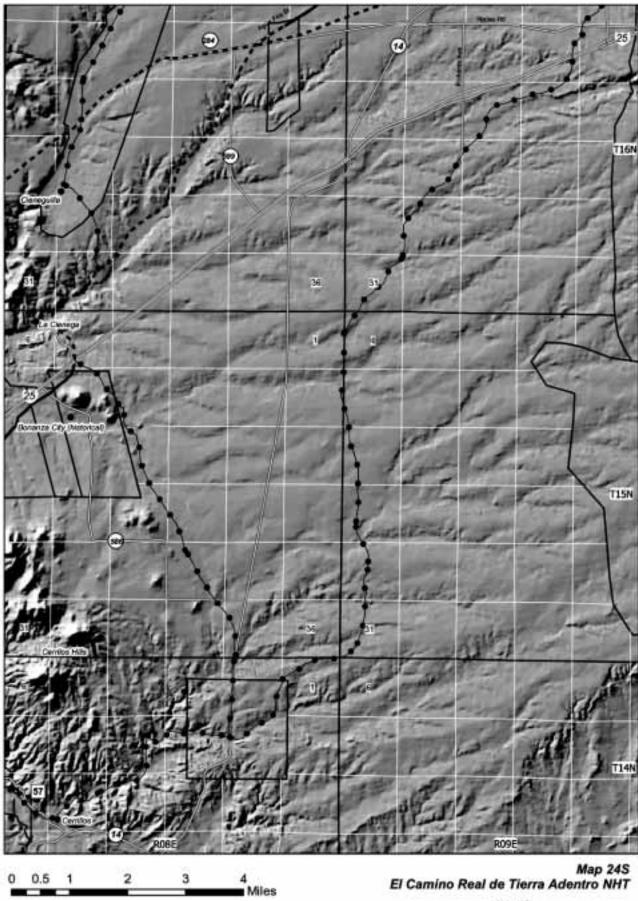
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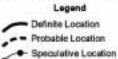




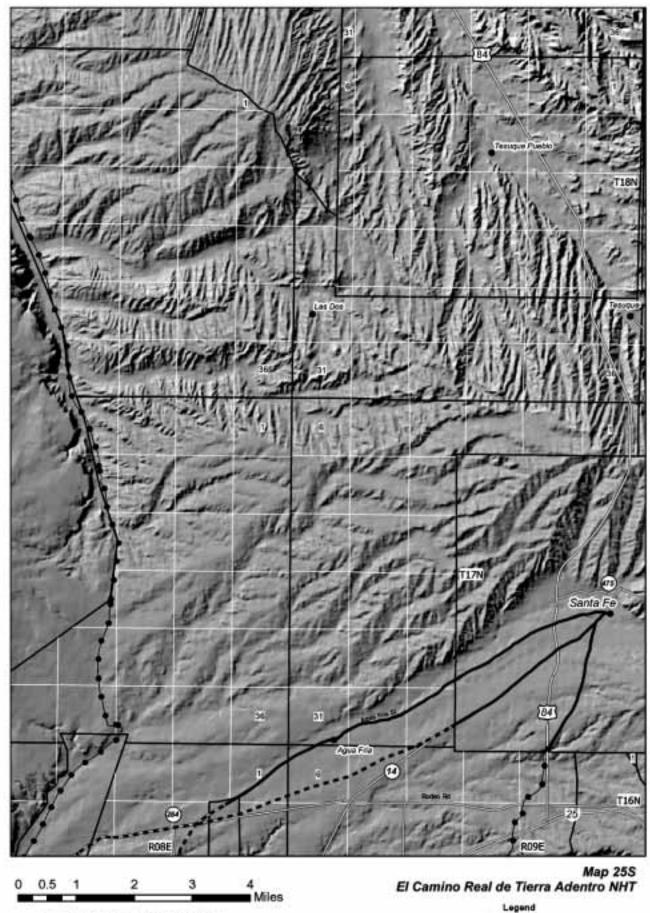


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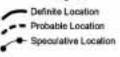
El Camino Real de Tierra Adentro NHT



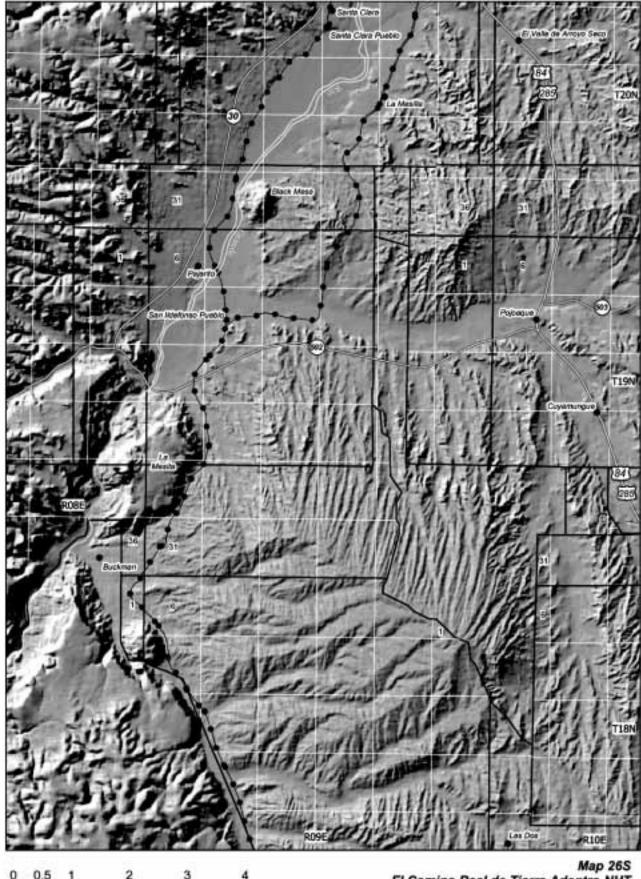




No exercity is made by the Timeau of Land Management or the National Park service on to the accuracy, whichtige, or componeness of those data for individual use or aggregate use with other date, or for purposes not intended by SLM. It posts into residen may not need fallismal May Accuracy Standards, The elementee may be optioned without softwatery









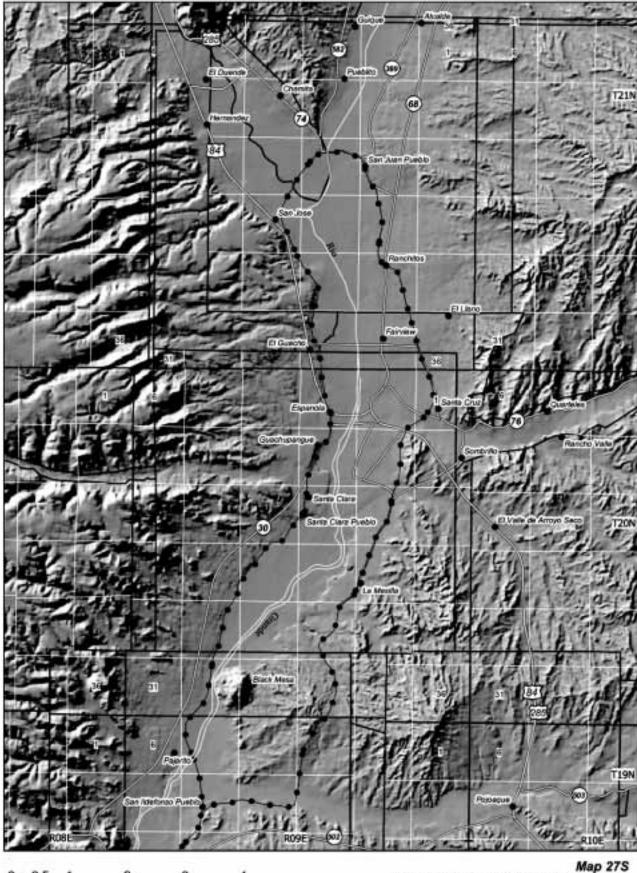
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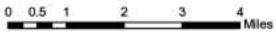
El Camino Real de Tierra Adentro NHT

Legend

Definite Location - Probable Location Speculative Location

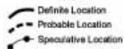






Map 27S El Camino Real de Tierra Adentro NHT

Legend





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